

GEOTECHNICAL INVESTIGATIONS

Highway Construction
Km 1768.1 to 1775.7 Alaska #1
Yukon, 2003-2004
Volume 3 of 3



Transportation Engineering Branch
Geotechnical Services

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ORIGINAL - Do Not Remove From File

GR-01-165 DRW12

HIGHWAY CONSTRUCTION

GEOTECHNICAL INVESTIGATION
Km 1768.1 to 1775.7
YUKON 2003-2004

ALASKA HIGHWAY #1

Highway Construction
Km 1768.1 to 1775.7
Alaska Highway #1
Yukon 2003-2004
Volume 3 of 3

This Data Package prepared for project viewing:

December, 2002

Transportation Engineering Branch
Geotechnical Services
461 Range Road
Whitehorse, Yukon

CONTENTS

Volume 1 of 3

INTRODUCTION

Investigation notes, classification methods and legends.

CENTRELINE TESTING ALASKA HIGHWAY

Subsurface Exploration and Testing Report Sheets are provided.

The reports for the centreline holes are arranged according to project location, starting at Km 1768+503 and increasing to Km 1775+500.

TEST HOLES 01 to 35
TEST HOLES 36 to 50
TEST HOLES 51 to 74
TEST HOLES 75 to 97
TEST HOLES 98 to 117

shown with prefix 596-
shown with prefix 597-
shown with prefix 598-
shown with prefix 599-
shown with prefix 600-

NOTE:

Centreline Test Hole locations indicated on the Subsurface Exploration and Testing Report Sheets are approximate. Actual Test Hole locations, located by GPS survey or field survey, are as shown on project plans.

CONTENTS (continued)

Volume 2 of 3

CENTRELINE TESTING ALASKA HIGHWAY

Laboratory Testing Result Sheets are provided.

The reports for the centrelineholes are arranged according to test hole number, starting at 596-01 and increasing to 600-117.

TEST HOLES 01 to 35	shown with prefix 596-
TEST HOLES 36 to 50	shown with prefix 597-
TEST HOLES 51 to 74	shown with prefix 598-
TEST HOLES 75 to 97	shown with prefix 599-
TEST HOLES 98 to 117	shown with prefix 600-

NOTE:

Centreline Test Hole locations indicated on the Subsurface Exploration and Testing Report Sheets are approximate. Actual Test Hole locations, located by GPS survey or field survey, are as shown on project plans.

CONTENTS (continued)

Volume 3 of 3

GRANULAR SOURCE Km 1766.0 LHS ALASKA HIGHWAY

A Production History and location plans are provided.

History of Aggregate Production

2001	20 mm Granular "A" Base Course
2001	20 mm Granular "A" Base Course
2001	20 mm B.S.T. Aggregate

GRANULAR SOURCE Km 1776.0 RHS & LHS ALASKA HIGHWAY

A Production History, location plans, photographs, and subsurface exploration and testing report sheets are provided.

History of Aggregate Production

1992	20 mm Granular "A" Base Course
1992	20 mm B.S.T. Aggregate
2002	20 mm Granular "A" Base Course
2002	20 mm Granular "A" Base Course
2002	20 mm B.S.T. Aggregate

Auger Testing

2001	TEST HOLES 117	shown with prefix 600-
2001	TEST HOLES 1966 to 1978	shown with prefix 626-

Backhoe Testing

1988	TEST PITS 9	shown with prefix 33-
2001	TEST PITS 8 to 15	shown with prefix 610-
2002	TEST PITS 2579 to 2599	shown with prefix 641-
2002	TEST PITS 2601	shown with prefix 642-

HIGHWAY CONSTRUCTION

GEOTECHNICAL INVESTIGATION

Km 1768.1 to 1775.7
YUKON 2003-2004

ALASKA HIGHWAY #1

GRANULAR SOURCE TESTING
Km 1766 LHS
ALASKA HIGHWAY

HISTORY OF AGGREGATE PRODUCTION

**Alaska Highway Km 1766.0 L.H.S.
Pit ID 115 G-05 (Duke River)**

Average Crusher Run Characteristics of Material Produced

File Number --- 2550-22/01-25 Contractor --- Golden Hill Ventures (Nuway Crushing Ltd.)
Commenced --- 01-08-03 Completed --- 01-08-11 No. of tests --- 56
Type of aggregate --- 20 mm Granular "A" Base Course (Capital)
Amount Produced --- $\pm 33,000 \text{ m}^3$

Sieve Size mm - 20.0 12.5 5.00 2.50 1.25 0.315 0.080
Percent Passing - 100 83.5 50.0 - 25.8 10.3 4.8
Moisture Content - 2.1 % Standard Proctor
Fracture - 68.4 % 2245 Kg/m³ @ 7.5 % moisture
=====

File Number --- 2550-22/01-25 Contractor --- Golden Hill Ventures (Nuway Crushing Ltd.)
Commenced --- 01-08-11 Completed --- 01-08-16 No. of tests --- 19
Type of aggregate --- 20 mm Granular "A" Base Course (Maintenance)
Amount Produced --- $\pm 13,600 \text{ m}^3$ Stockpile ID --- 2001-30

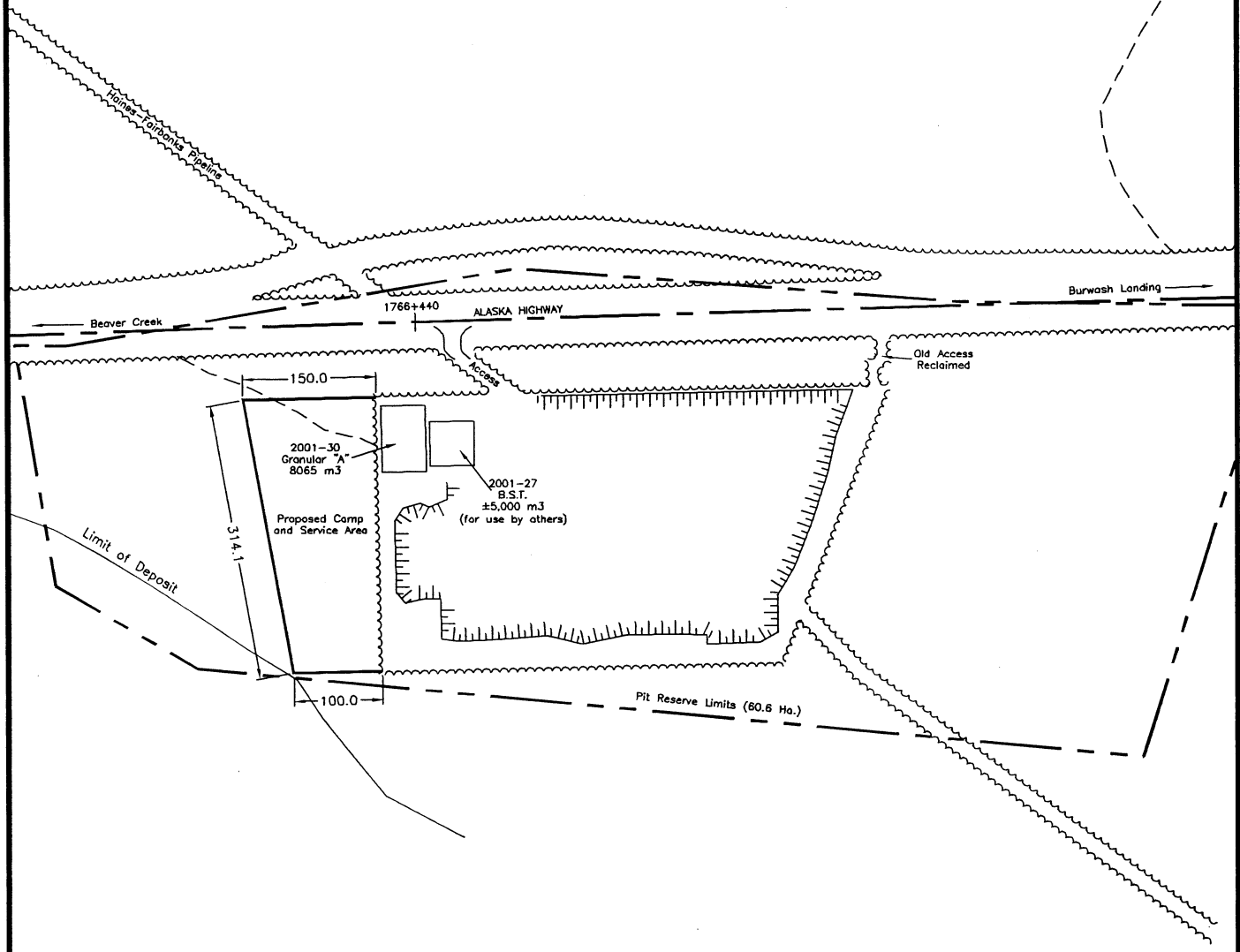
Sieve Size mm - 20.0 12.5 5.00 2.50 1.25 0.315 0.080
Percent Passing - 100 82.3 47.3 - 23.7 9.6 4.4
Moisture Content - 2.1 % Standard Proctor
Fracture - 70.5 % 2250 Kg/m³ @ 7.8 % moisture
=====


File Number --- 2550-22/01-25 Contractor --- Golden Hill Ventures (Nuway Crushing Ltd.)
Commenced --- 01-08-12 Completed --- 01-08-14 No. of tests --- 16
Type of aggregate --- 20 mm B.S.T. Aggregate
Amount Produced --- $\pm 8,129 \text{ m}^3$ Stockpile ID --- 2001-27

Sieve Size mm - 20.0 12.5 5.00 2.50 1.25 0.315 0.080
Percent Passing - 100 82.1 47.2 32.9 23.8 9.7 4.5
Moisture Content - 2.0 % Standard Proctor
Fracture - 4.5 % Kg/m³ @ % moisture
=====

LEGEND

- ~~~~~ Edge of clearing
- Existing trails



	SITE PLAN GRANULAR PIT Km 1766.0 L.H.S. (Duke River) ALASKA HWY. YUKON	pit file: 115 G-05
		revision: 03-Proposed
Transportation Engineering Branch		drawn: JJM
		date: 03-01-16
		scale: 1: 7,500
		drwg: 011766SP

HIGHWAY CONSTRUCTION

GEOTECHNICAL INVESTIGATION
Km 1768.1 to 1775.7
YUKON 2003-2004

ALASKA HIGHWAY #1

**GRANULAR SOURCE TESTING
Km 1776 RHS & LHS
ALASKA HIGHWAY**

HISTORY OF AGGREGATE PRODUCTION

**Alaska Highway Km 1776.0 L.H.S.
Pit ID 115 G-06A (Burwash Creek)**

Average Crusher Run Characteristics of Material Produced

File Number --- 2142-5-70 Contractor --- Nuway Crushing Ltd.
Commenced --- 92-06-14 Completed --- 92-06-21 No. of tests --- 18
Type of aggregate --- 20 mm Granular "A" Base Course
Amount Produced --- 4,400 m³

Sieve Size mm - 20.0 12.5 10.0 5.00 2.50 1.25 0.315 0.080
Percent Passing - 100 80.6 -- 46.0 32.8 23.9 9.3 3.6
Moisture Content - 2.2 % Standard Proctor
Fracture - 72.1 % Kg/m³ @ % moisture
=====

File Number --- 2142-5-70 Contractor --- Nuway Crushing Ltd.
Commenced --- 92-06-15 Completed --- 92-06-19 No. of tests --- 11
Type of aggregate --- 20 mm B.S.T. Aggregate
Amount Produced --- 3,100 m³

Sieve Size mm - 20.0 12.5 10.0 5.00 2.50 1.25 0.315 0.080
Percent Passing - 99.7 83.7 -- 43.7 30.7 22.1 8.5 3.5
Moisture Content - 2.3 % Standard Proctor
Fracture - 73.8 % Kg/m³ @ % moisture
=====

File Number --- 2550-22/01-31 Contractor --- Golden Hill / Nuway Crushing
Commenced --- 02-05-10 Completed --- 02-05-25 No. of tests --- 117
Type of aggregate --- 20 mm Granular "A" Base Course
Amount Produced --- 50,954 m³ (Construction Stockpile)

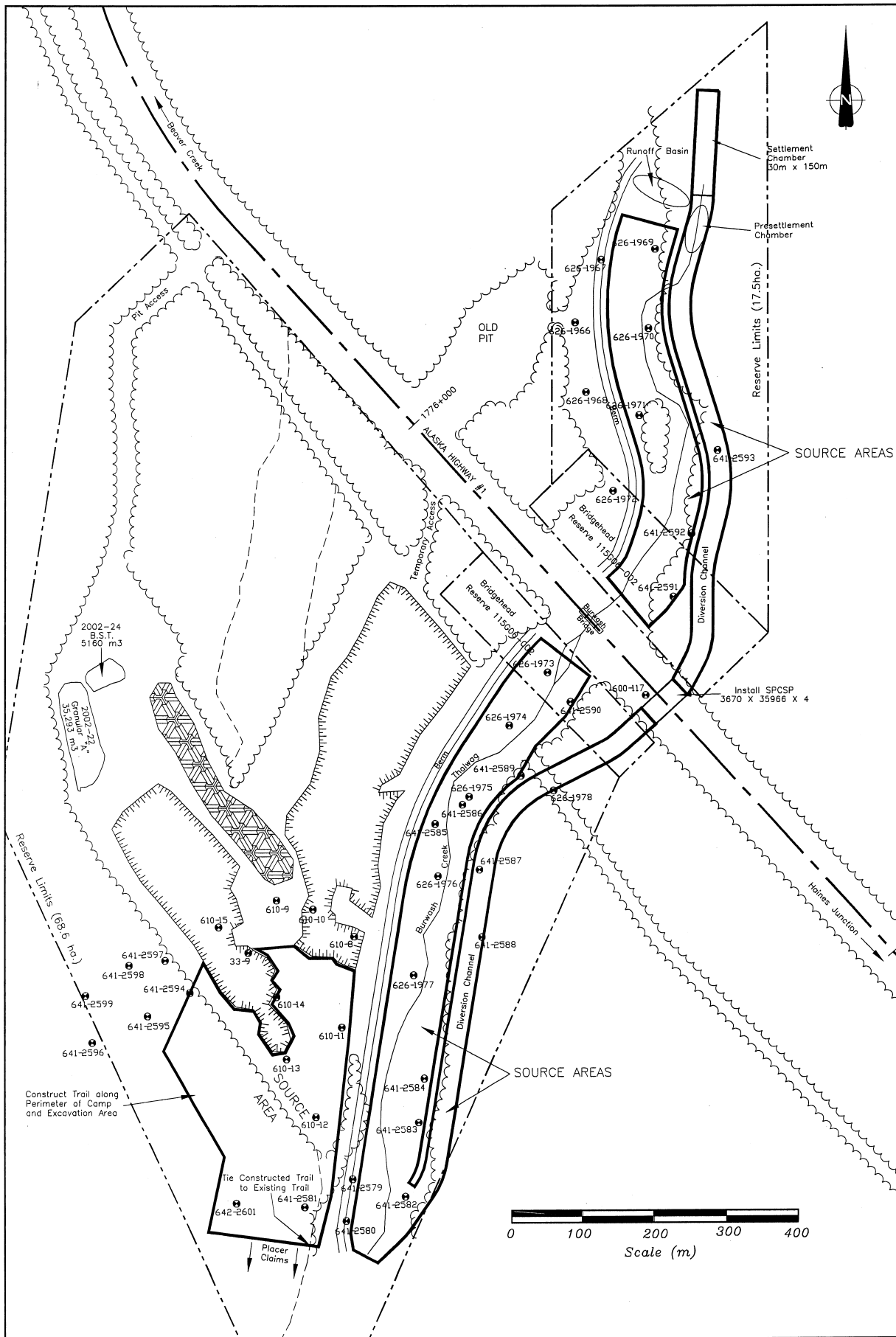
Sieve Size mm - 20.0 12.5 10.0 5.00 2.50 1.25 0.315 0.080
Percent Passing - 99.9 82.8 -- 48.5 -- 25.4 11.8 5.7
Moisture Content - 2.7 % Standard Proctor
Fracture - 77.1 % 2290 Kg/m³ @ 7.2 % moisture
=====

File Number --- 2550-22/01-31 Contractor --- Golden Hill / Nuway Crushing
Commenced --- 02-05-25 Completed --- 02-06-20 No. of tests --- 72
Type of aggregate --- 20 mm Granular "A" Base Course
Amount Produced --- 38,177 m³ (YTG Stockpile) Stockpile ID --- 2002-22

Sieve Size mm - 20.0 12.5 10.0 5.00 2.50 1.25 0.315 0.080
Percent Passing - 100 81.7 -- 47.1 -- 24.3 11.7 4.2
Moisture Content - 2.9 % Standard Proctor
Fracture - 76.3 % 2290 Kg/m³ @ 7.2 % moisture
=====

File Number --- 2550-22/01-31 Contractor --- Golden Hill / Nuway Crushing
Commenced --- 02-06-12 Completed --- 02-06-15 No. of tests --- 12
Type of aggregate --- 20 mm B.S.T. Aggregate
Amount Produced --- 5,160 m³ (YTG Stockpile) Stockpile ID --- 2005-24

Sieve Size mm	- 20.0	12.5	10.0	5.00	2.50	1.25	0.315	0.080
Percent Passing	- 99.9	81.3	--	46.2	32.2	23.8	10.7	4.9
Moisture Content	- 2.4 %	Standard Proctor						
Fracture	- 75.7 %	Kg/m ³ @ 7.2 % moisture						



LEGEND	
	Edge of clearing
	Existing trails
	Approximate test hole location
	Grubbing and Stripping Disposal Area

Yukon
Infrastructure

Transportation Engineering Branch

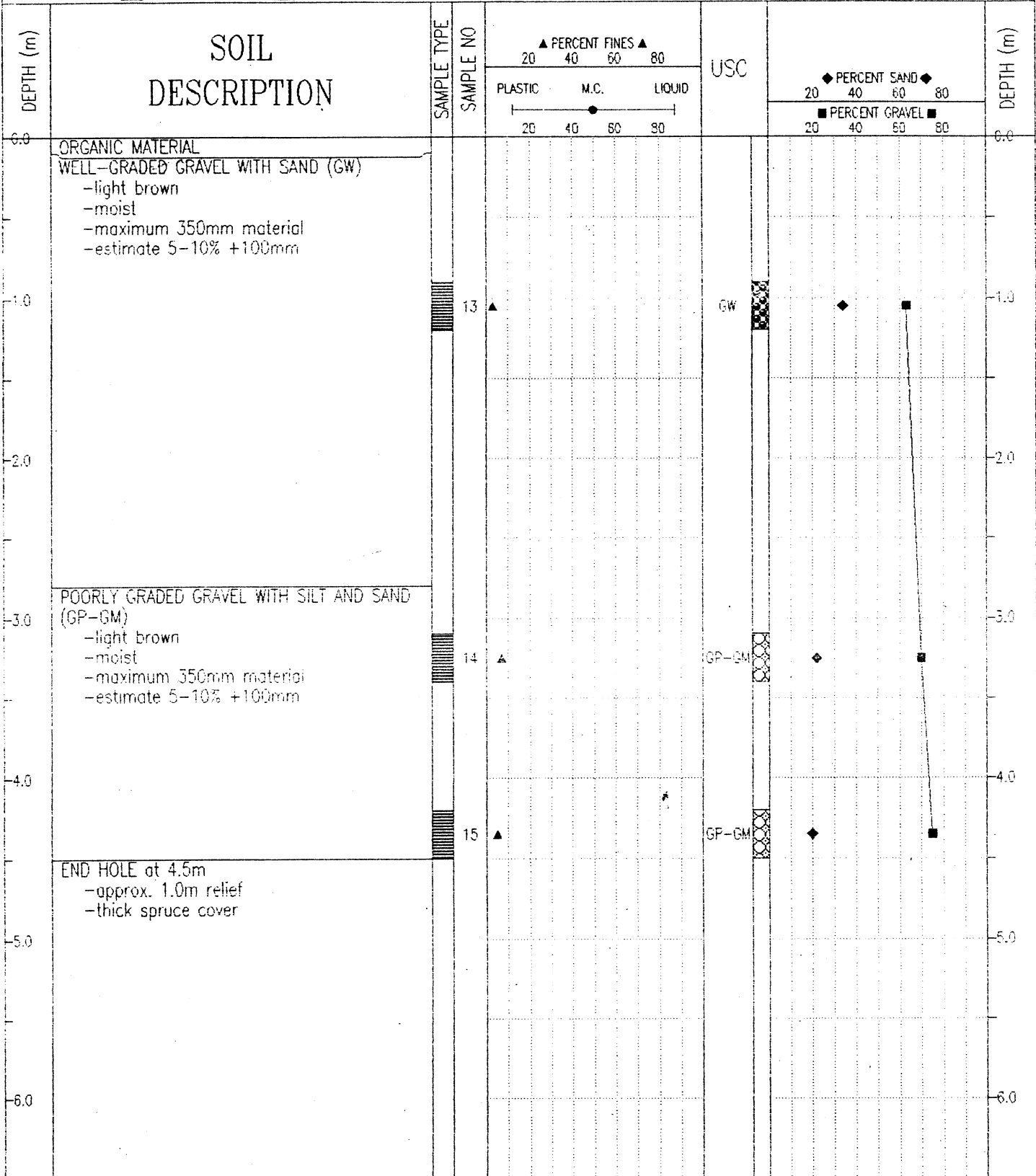
SITE PLAN
GRANULAR PIT
Km 1776.0 R.H.S. & L.H.S.
(Burwash Creek)
ALASKA HWY. YUKON

pit file: 115 G-06A
revision: 03-Proposed
drawn: JJM
date: 03-01-16
scale: 1: 5000
drwg: 115g-06aS

**Km 1776.0 LHS Alaska Highway #1
Pit Ident. 115 G-06A (Burwash Creek)**

**1988
Test Pit Logs**

SUBSURFACE EXPLORATION AND TEST REPORT	ALASKA HIGHWAY PRE-ENGINEERING	BOREHOLE No. 033-09
PWC - CAPITAL Y.T.	A/H KM 1776 LHS	Project No: 115-G-06
BACKHOE: CAT 225	LOCATION: See Plan	ELEVATION 0.000 (m)
SAMPLE TYPE <input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE		



Public Works Canada
Whitehorse, Yukon Territory.

COMPLETION DEPTH 4.5 m

COMPLETE 88/10/30

LOGGED BY CB

DWG NO.

Page 1 of 1

Km 1776.0 LHS Alaska Highway #1
Pit Ident. 115 G-06A (Burwash Creek)

1988
Pit Run Sample Results

PROJECT NUMBER: 115-G-06 HOLE NUMBER: 033-09
 CLIENT: PWC - CAPITAL Y.T.
 PROJECT NAME: ALASKA HIGHWAY PRE-ENGINEERING
 PROJECT LOCATION: A/H KM 1776 LHS
 DRILL UNIT: CAT 225 HOE
 HOLE LOCATION: SEE PLAN
 LOGGED BY: CB DATE COMPLETED: 88.10.30

FIELD NO:	LAB NO:	DEPTH:	TYPE:
13	2745	0.9-1.2	BULK
14	2746	3.1-3.4	BULK
15	2747	4.2-4.5	BULK

SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
101.6	--	101.6	--	101.6	--
76.2	100	76.2	100	76.2	100
50.8	87	50.8	92	50.8	76
38.1	75	38.1	82	38.1	61
25.4	68	25.4	70	25.4	54
19.0	62	19.0	59	19.0	45
12.7	54	12.7	46	12.7	37
9.5	48	9.5	41	9.5	33
4.76	37	4.76	30	4.76	25
2.38	--	2.38	--	2.38	--
2.00	24	2.00	21	2.00	18
1.19	--	1.19	--	1.19	--
0.841	15	0.841	14	0.841	13
0.595	--	0.595	--	0.595	--
0.42	11	0.42	11	0.42	10
0.297	--	0.297	--	0.297	--
0.177	--	0.177	--	0.177	--
0.149	4	0.149	8	0.149	6
0.074	3	0.074	7	0.074	5

M.C.(%): -- M.C.(%): -- M.C.(%): --

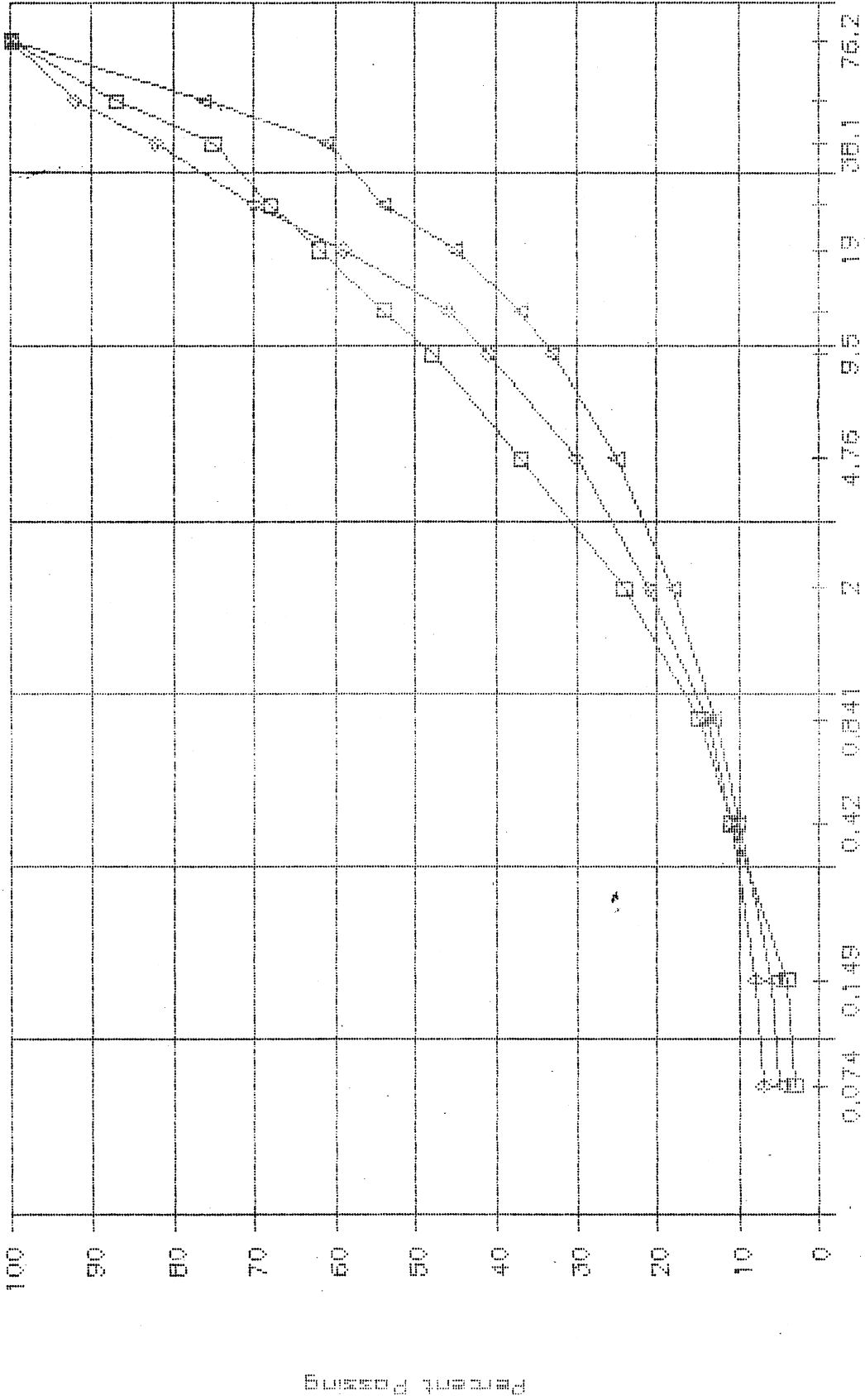
LIMITS		LIMITS		LIMITS	
LIQUID:	--	LIQUID:	--	LIQUID:	--
PLASTIC:	--	PLASTIC:	--	PLASTIC:	--
P.I.:	N.P.	P.I.:	N.P.	P.I.:	N.P.

% GRAVEL:	63	% GRAVEL:	70	% GRAVEL:	75
% SAND:	34	% SAND:	22	% SAND:	20
% FINES:	3	% FINES:	7	% FINES:	5

CLASSIFICATION:	WELL-GRADED GRAVEL WITH SAND (GW)	CLASSIFICATION:	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	CLASSIFICATION:	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)
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PUBLIC WORKS CANADA — WHITEHORSE, Y.T.

Grain Size Analysis — Hole 033-09



SAMP. 13
 SAMP. 14
 SAMP. 15
 X
 5AMP.

Km 1776.0 LHS Alaska Highway #1
Pit Ident. 115 G-06A (Burwash Creek)

1988
Crush Sample Results

PROJECT NUMBER: 115-G-06 HOLE NUMBER: 033-09C
 CLIENT: PWC - CAPITAL Y.T.
 PROJECT NAME: ALASKA HIGHWAY PRE-ENGINEERING
 PROJECT LOCATION: A/H KM 1776 LHS
 DRILL UNIT: CAT 225 HOE
 HOLE LOCATION: SEE PLAN
 LOGGED BY: CB DATE COMPLETED: 88.10.30

FIELD NO: 13	FIELD NO: 14	FIELD NO: 15
LAB NO: 2745	LAB NO: 2746	LAB NO: 2747
DEPTH: 0.9-1.2	DEPTH: 3.1-3.4	DEPTH: 4.2-4.5
TYPE: BULK	TYPE: BULK	TYPE: BULK
CC = 66%	CC = 83%	CC = 80%

SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
101.6	--	101.6	--	101.6	--
76.2	--	76.2	--	76.2	--
50.8	--	50.8	--	50.8	--
38.1	--	38.1	--	38.1	--
25.4	--	25.4	--	25.4	--
19.0	100	19.0	100	19.0	100
12.7	93	12.7	92	12.7	91
9.5	78	9.5	76	9.5	78
4.76	48	4.76	47	4.76	51
2.38	--	2.38	--	2.38	--
2.00	30	2.00	30	2.00	34
1.19	--	1.19	--	1.19	--
0.841	18	0.841	19	0.841	24
0.595	--	0.595	--	0.595	--
0.42	12	0.42	14	0.42	18
0.297	--	0.297	--	0.297	--
0.177	--	0.177	--	0.177	--
0.149	5	0.149	10	0.149	10
0.074	3	0.074	9	0.074	8

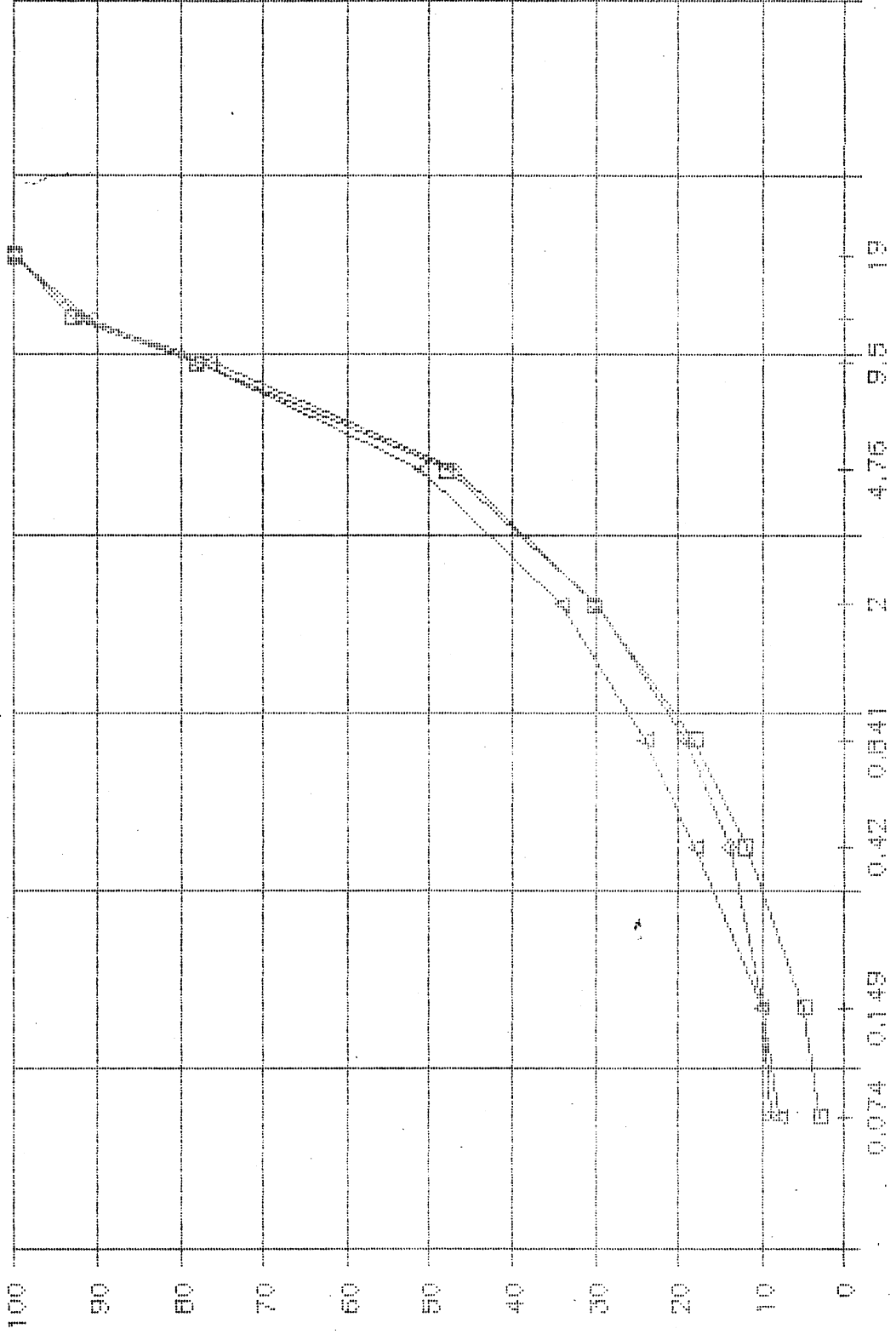
M.C. (%):	--	M.C. (%):	--	M.C. (%):	--
LIMITS		LIMITS		LIMITS	
LIQUID:	--	LIQUID:	--	LIQUID:	--
PLASTIC:	--	PLASTIC:	--	PLASTIC:	--
P.I.:	N.P.	P.I.:	N.P.	P.I.:	N.P.

% GRAVEL:	52	% GRAVEL:	53	% GRAVEL:	49
% SAND:	45	% SAND:	38	% SAND:	43
% FINES:	3	% FINES:	9	% FINES:	8

CLASSIFICATION:	WELL-GRADED GRAVEL WITH SAND (GW)	CLASSIFICATION:	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	CLASSIFICATION:	WELL-GRADED GRAVEL WITH SILT & SAND (GW-GM)
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PUBLIC WORKS CANADA — WHITEHORSE, Y.T.

Grain Size Analysis — Hole 033-09C



SAMP. 13
 SAMP. 15
 X SAMP.

PERCENT PASSING

Km 1776.0 LHS Alaska Highway #1
Pit Ident. 115 G-06A (Burwash Creek)

2001
Test Hole Logs

SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 600-117
ENGINEERING CAPITAL	KM 1729-1787 A/H	Project No: 092-202101-0361
B40 L MOBILE DRILL 6" AUGER	LOCATION: 1775+500 10m LT	ELEVATION: 0.00 (m)
SAMPLE TYPE <input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE		

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES ▲			USC	SOIL SYMBOL	DEPTH (m)
				PLASTIC	M.C.	LIQUID			
				20 40 60 80	20 40 60 80	20 40 60 80			
0.0	ORGANIC -brown -moist								0.0
1.0	WELL-GRADED GRAVEL WITH SILT & SAND (GW-GM) -grey -moist								1.0
2.0									2.0
3.0									3.0
4.0	END HOLE @ 4.0m -refusal	<input checked="" type="checkbox"/>	189				GW-GM	▲ 40 ▲ ■ 40 ■	4.0
5.0									5.0
6.0									6.0

Government of Yukon
Transportation Engineering

LOGGED BY: B.B.
REVIEWED BY:
Fig. No:

COMPLETION DEPTH: 4.0 m
COMPLETE: 01/06/21

Km 1776.0 LHS Alaska Highway #1
Pit Ident. 115 G-06A (Burwash Creek)

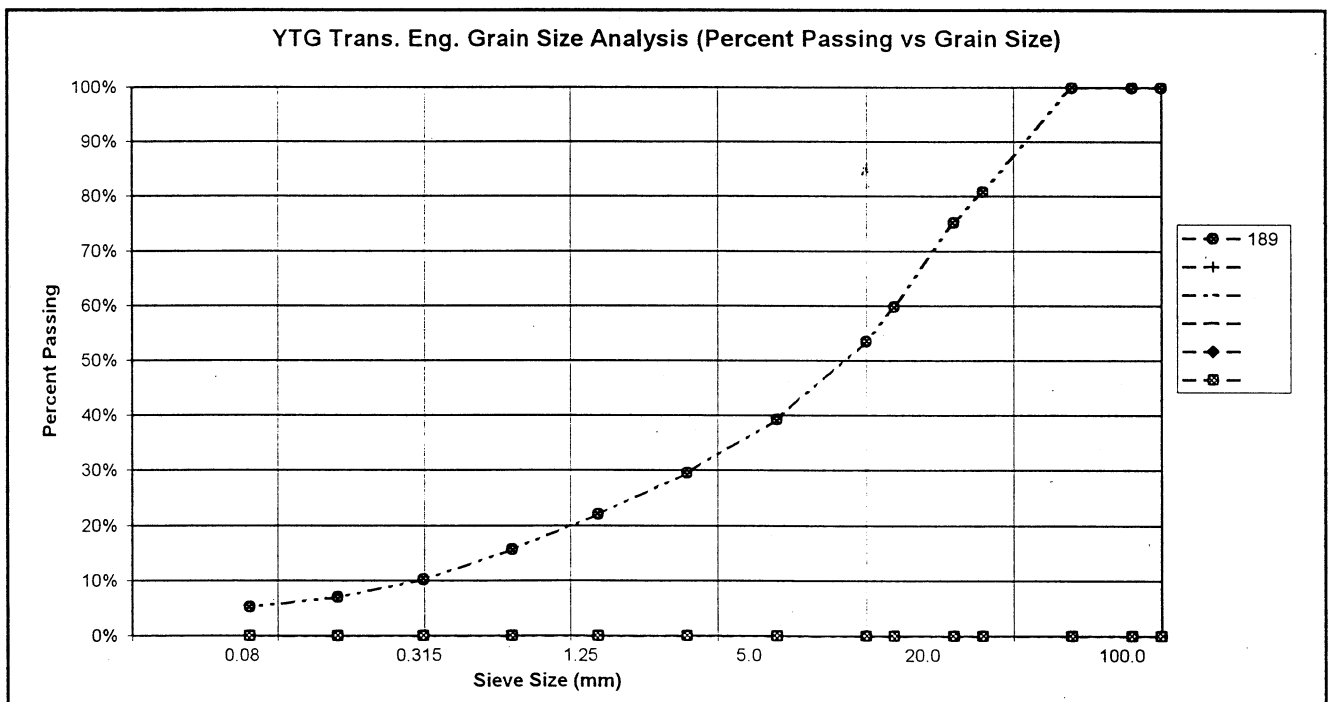
2001
Auger Sample Results

PROJECT NUMBER: 092-202101-0361-1
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SHAKWAK SEG 11
 PROJECT LOCATION: Km 1729-1787 A/H
 DRILL UNIT: MOBILE B40 L
 HOLE LOCATION: 1775+500 10M LT
 LOGGED BY: B.B.

HOLE No.: 600-117

DATE COMP: 2001/06/21

FIELD NO:	189				
LAB NO:	700				
DEPTH:	3.8-4.0				
TYPE:	AUGER	AUGER	AUGER	AUGER	
SIEVE SIZE	PERCENT PASSING				
100.0	100%				
80.0	100%				
50.0	100%				
25.0	81%				
20.0	75%				
12.5	60%				
10.0	54%				
5.0	39%				
2.5	30%				
1.25	22%				
0.630	16%				
0.315	10%				
0.160	7%				
0.080	5%				
M.C.(%)	2%				
LIQUID LIMIT:	0.0				
PLASTIC LIMIT:	0.0				
PLASTIC INDEX:	0.0				
% GRAVEL:	61				
% SAND:	34				
% FINES:	5				
CLASSIFICATION	WELL-GRADED GRAVEL WITH SILT & SAND (GW-GM)				

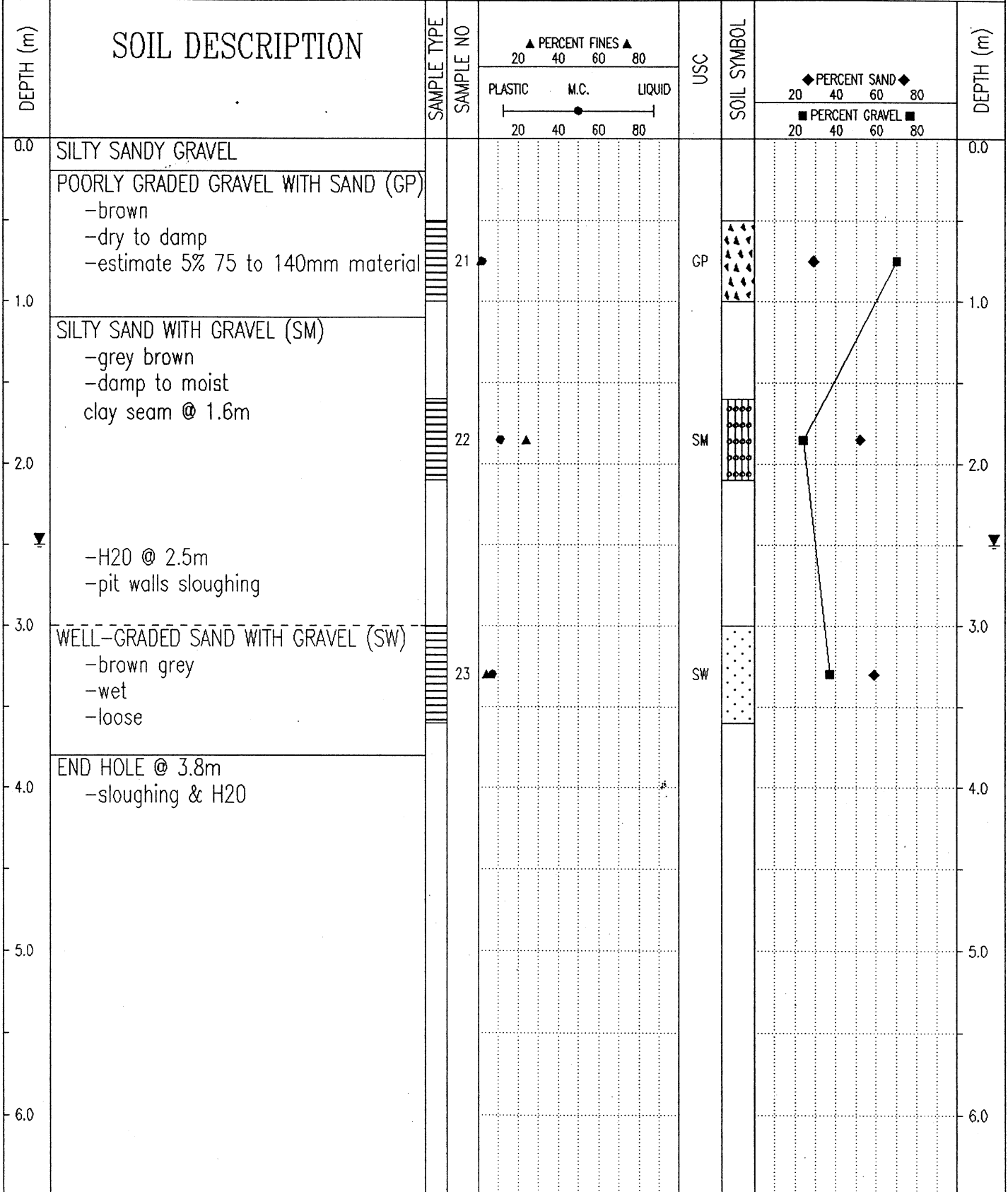


Km 1776.0 LHS Alaska Highway #1
Pit Ident. 115 G-06A
(Burwash Creek)

2001
Test Pit Logs

SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST PIT NO: 610-08
ENGINEERING CAPITAL	KM 1776.0 LHS A/H	Project No: 092-202101-0361
KAMATSU 220 EXCAVATOR	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

SAMPLE TYPE RETURN S.P.T. AUGER BULK TUBE CORE

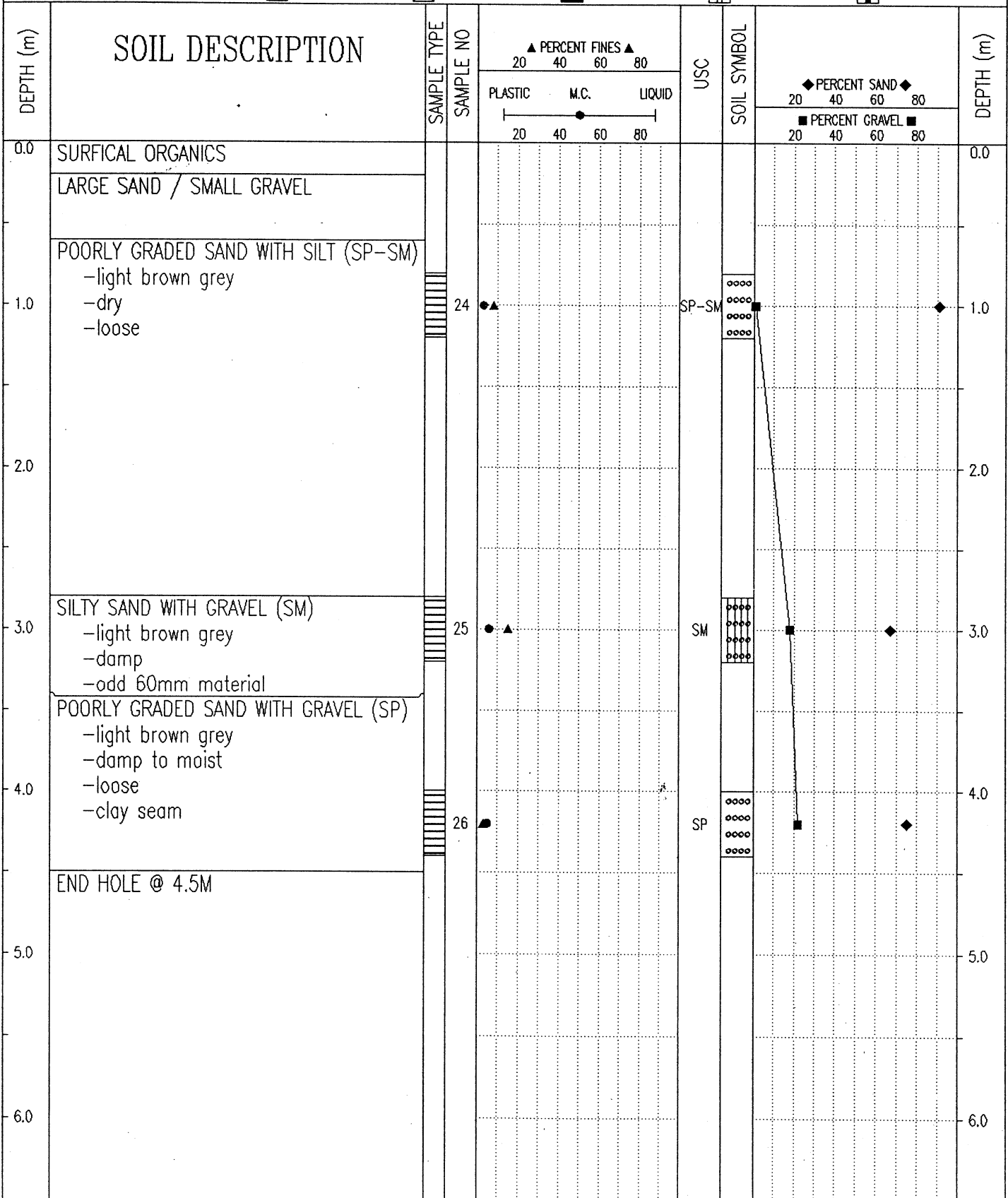


Government of Yukon
Transportation Engineering

LOGGED BY: JRP.
REVIEWED BY:
Fig. No: 115-G-06A

COMPLETION DEPTH: 3.8 m
COMPLETE: 01/07/20

SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST PIT NO: 610-09
ENGINEERING CAPITAL	KM 1776.0 LHS A/H	Project No: 092-202101-0361
KAMATSU 220 EXCAVATOR	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)
SAMPLE TYPE <input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE		



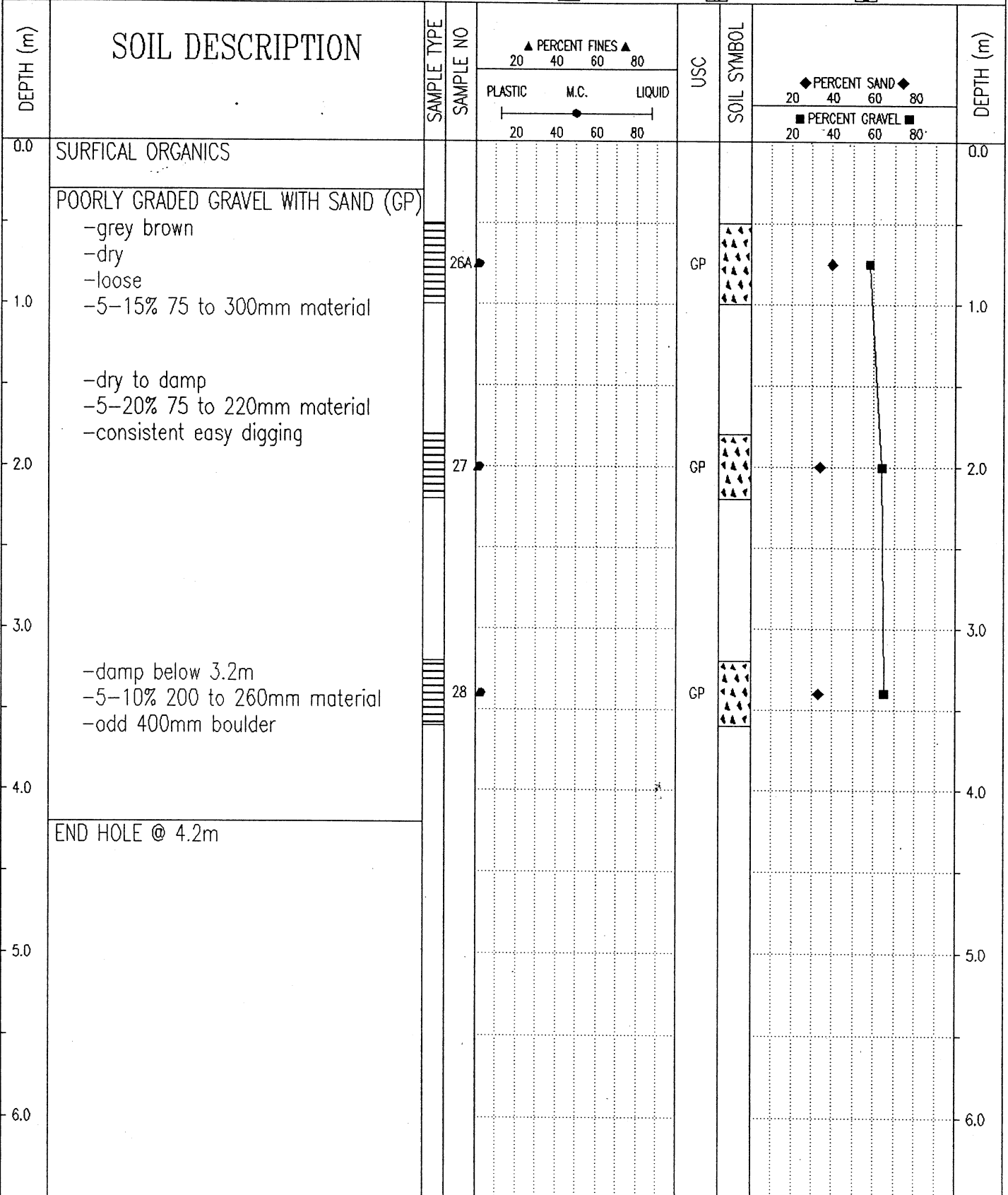
Government of Yukon
Transportation Engineering

LOGGED BY: JRP.
REVIEWED BY:
Fig. No: 115-G-06A

COMPLETION DEPTH: 4.5 m
COMPLETE: 01/07/20
Page 1 of 1

SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST PIT NO: 610-10
ENGINEERING CAPITAL	KM 1776.0 LHS A/H	Project No: 092-202101-0361
KAMATSU 220 EXCAVATOR	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

SAMPLE TYPE RETURN S.P.T. AUGER BULK TUBE CORE



Government of Yukon
Transportation Engineering

LOGGED BY: JRP.

REVIEWED BY:

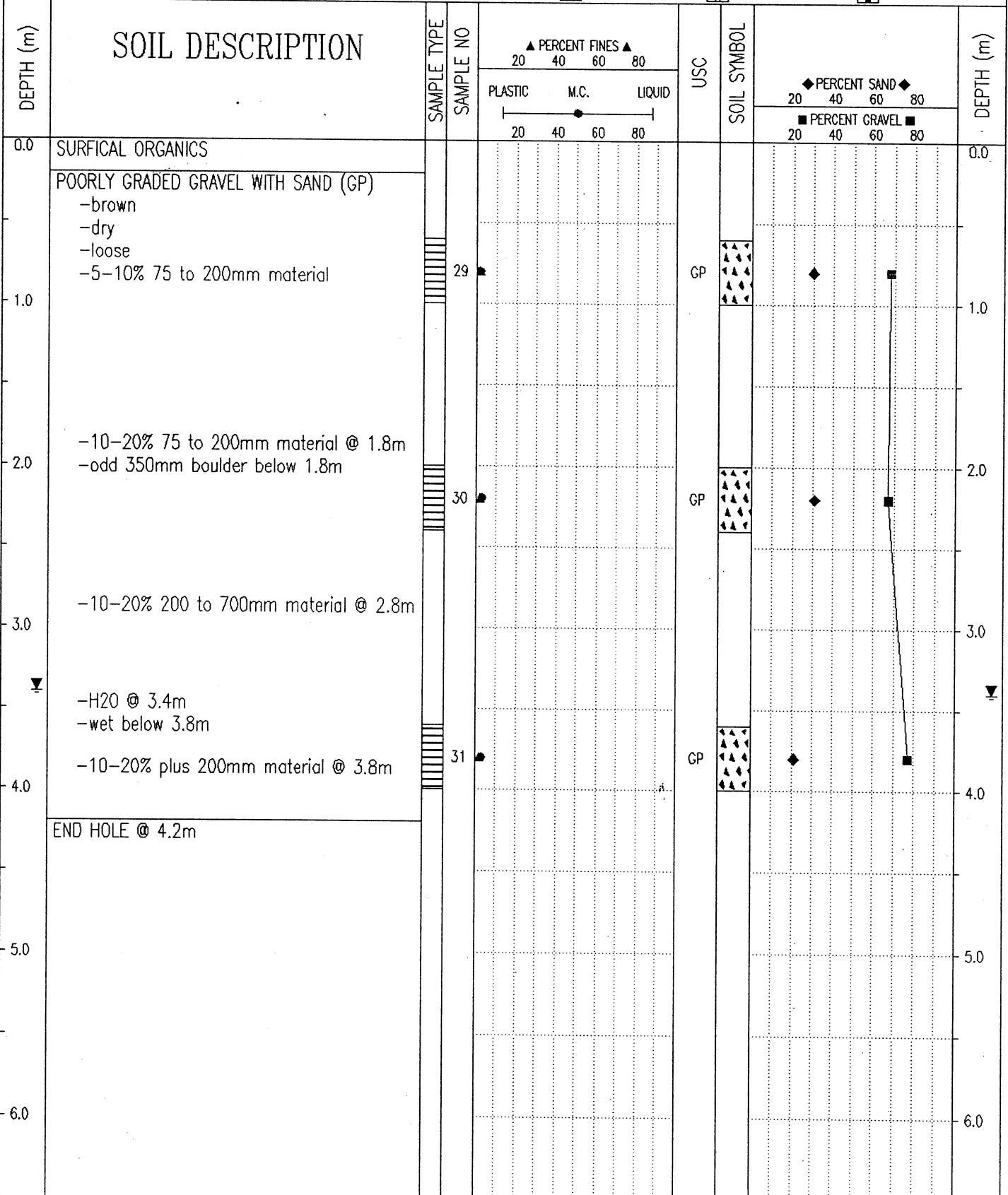
Fig. No: 115-G-06A

COMPLETION DEPTH: 4.2 m

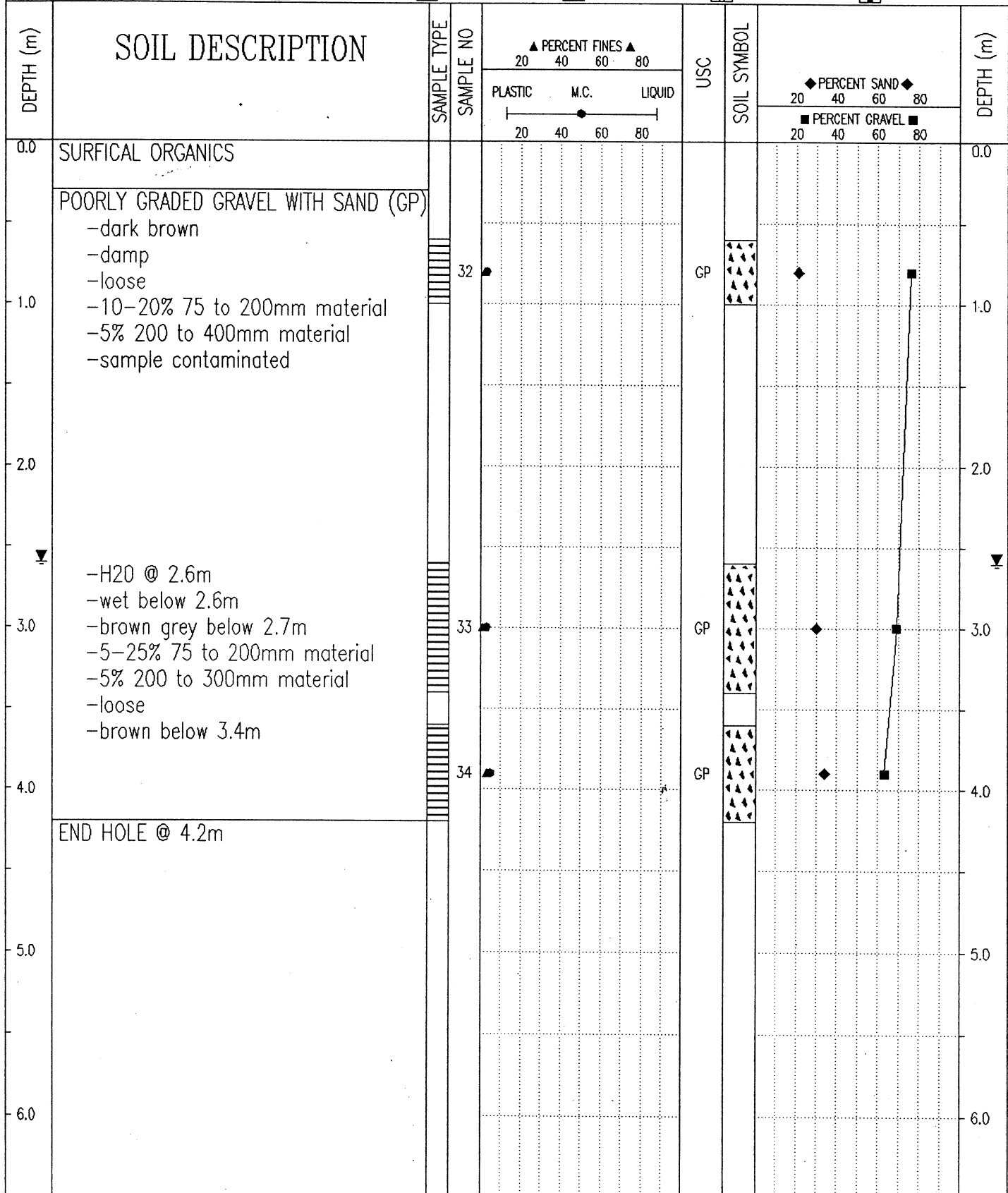
COMPLETE: 01/07/21

Page 1 of 1

SUBSURFACE EXPLORATION & TESTING REPORT		SHAKWAK SEG 11	TEST PIT NO: 610-11
ENGINEERING CAPITAL		KM 1776.0 LHS A/H	Project No: 092-202101-0361
KAMATSU 220 EXCAVATOR		LOCATION: SEE PLAN	ELEVATION: 0.00 (m)
SAMPLE TYPE	<input checked="" type="checkbox"/> RETURN	<input checked="" type="checkbox"/> S.P.T.	<input checked="" type="checkbox"/> AUGER
		<input type="checkbox"/> BULK	<input type="checkbox"/> TUBE
			<input type="checkbox"/> CORE



SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST PIT NO: 610-12
ENGINEERING CAPITAL	KM 1776.0 LHS A/H	Project No: 092-202101-0361
KAMATSU 220 EXCAVATOR	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)
SAMPLE TYPE	<input checked="" type="checkbox"/> RETURN	<input checked="" type="checkbox"/> S.P.T.
	<input checked="" type="checkbox"/> AUGER	<input type="checkbox"/> BULK
	<input type="checkbox"/> TUBE	<input type="checkbox"/> CORE

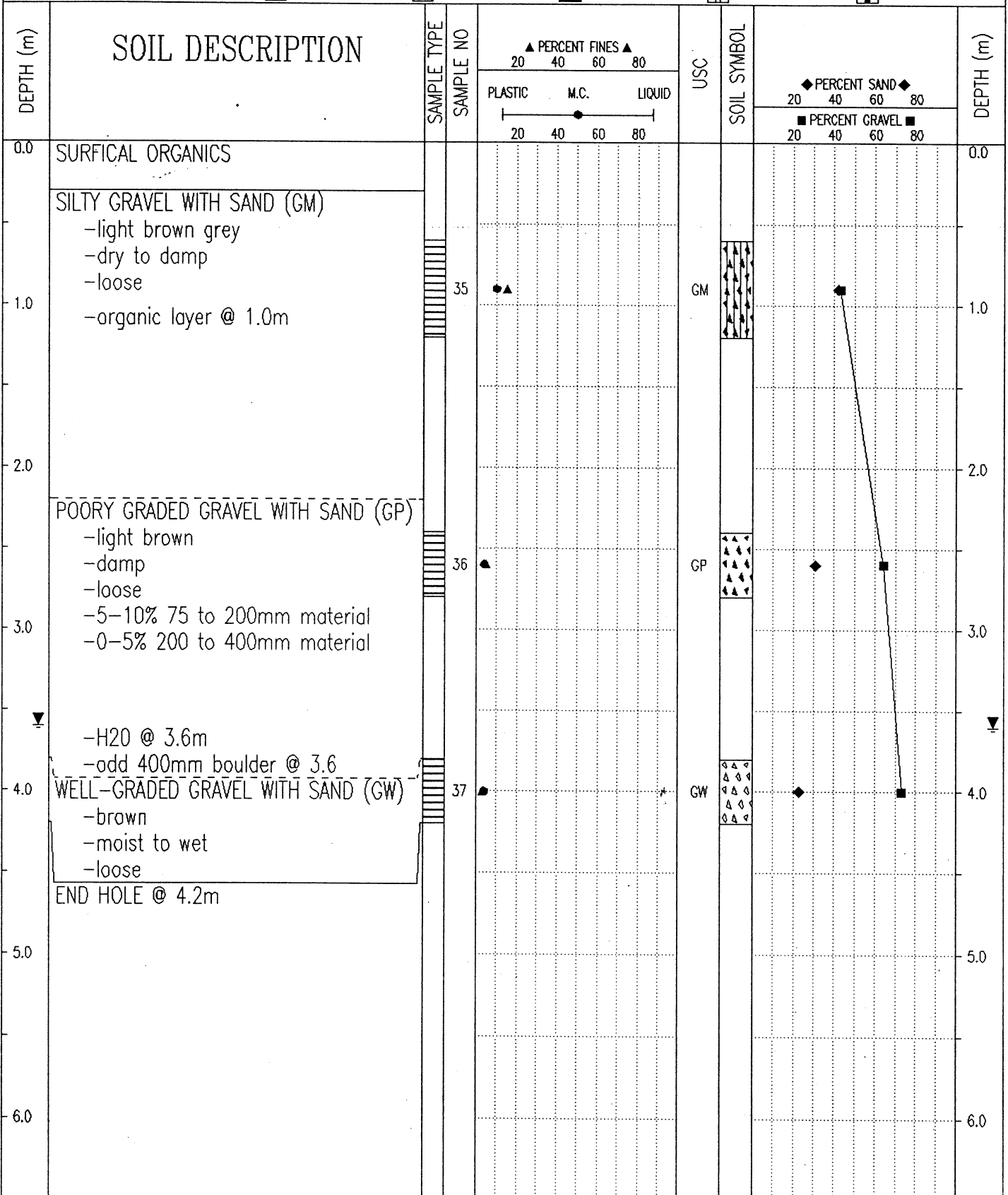


Government of Yukon
Transportation Engineering

LOGGED BY: JRP.
REVIEWED BY:
Fig. No: 115-G-06A

COMPLETION DEPTH: 4.2 m
COMPLETE: 01/07/21

SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST PIT NO: 610-13
ENGINEERING CAPITAL	KM 1776.0 LHS A/H	Project No: 092-202101-0361
KAMATSU 220 EXCAVATOR	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)
SAMPLE TYPE <input checked="" type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE		

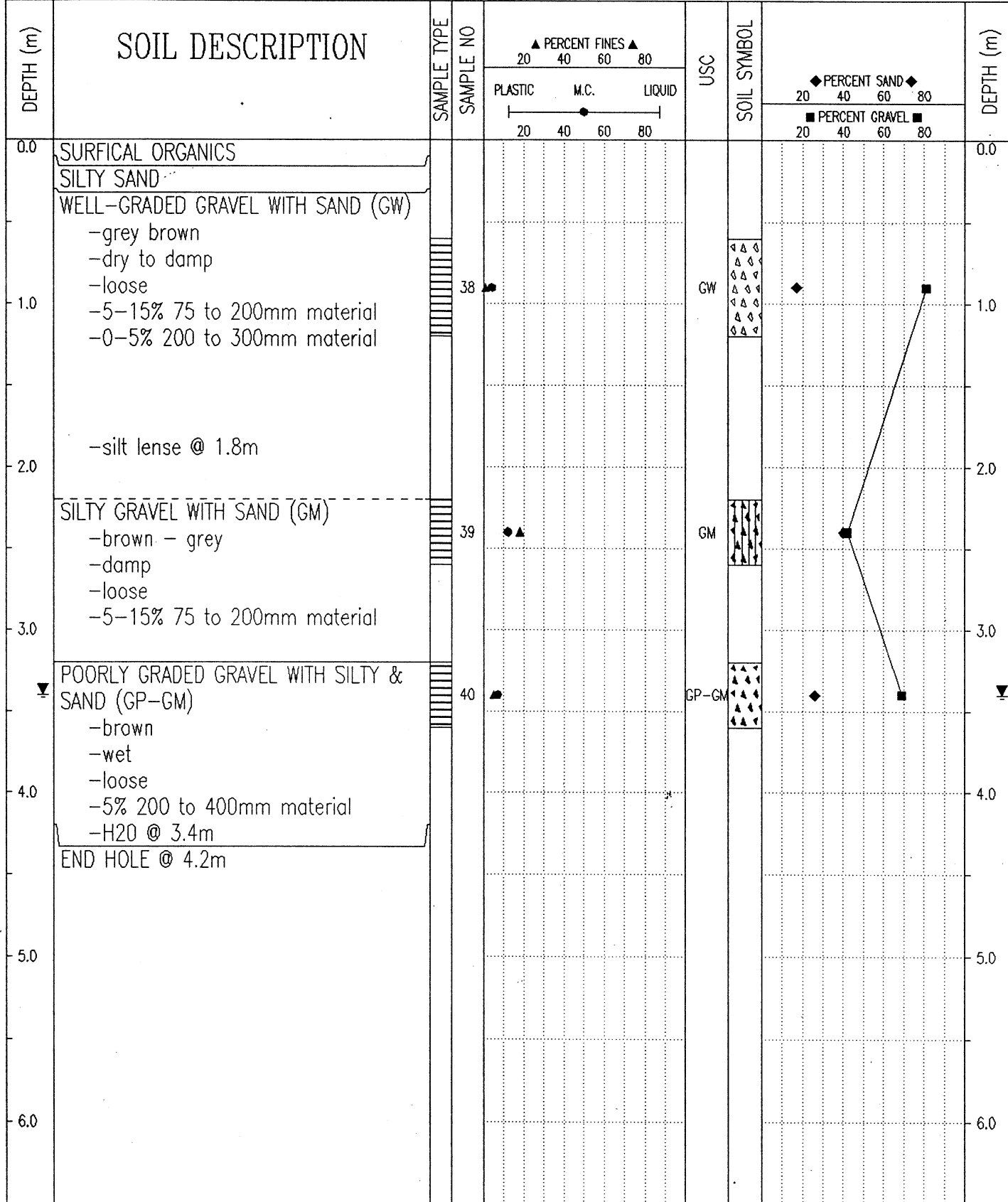


Government of Yukon
 Transportation Engineering

LOGGED BY: JRP.
 REVIEWED BY:
 Fig. No: 115-G-06A

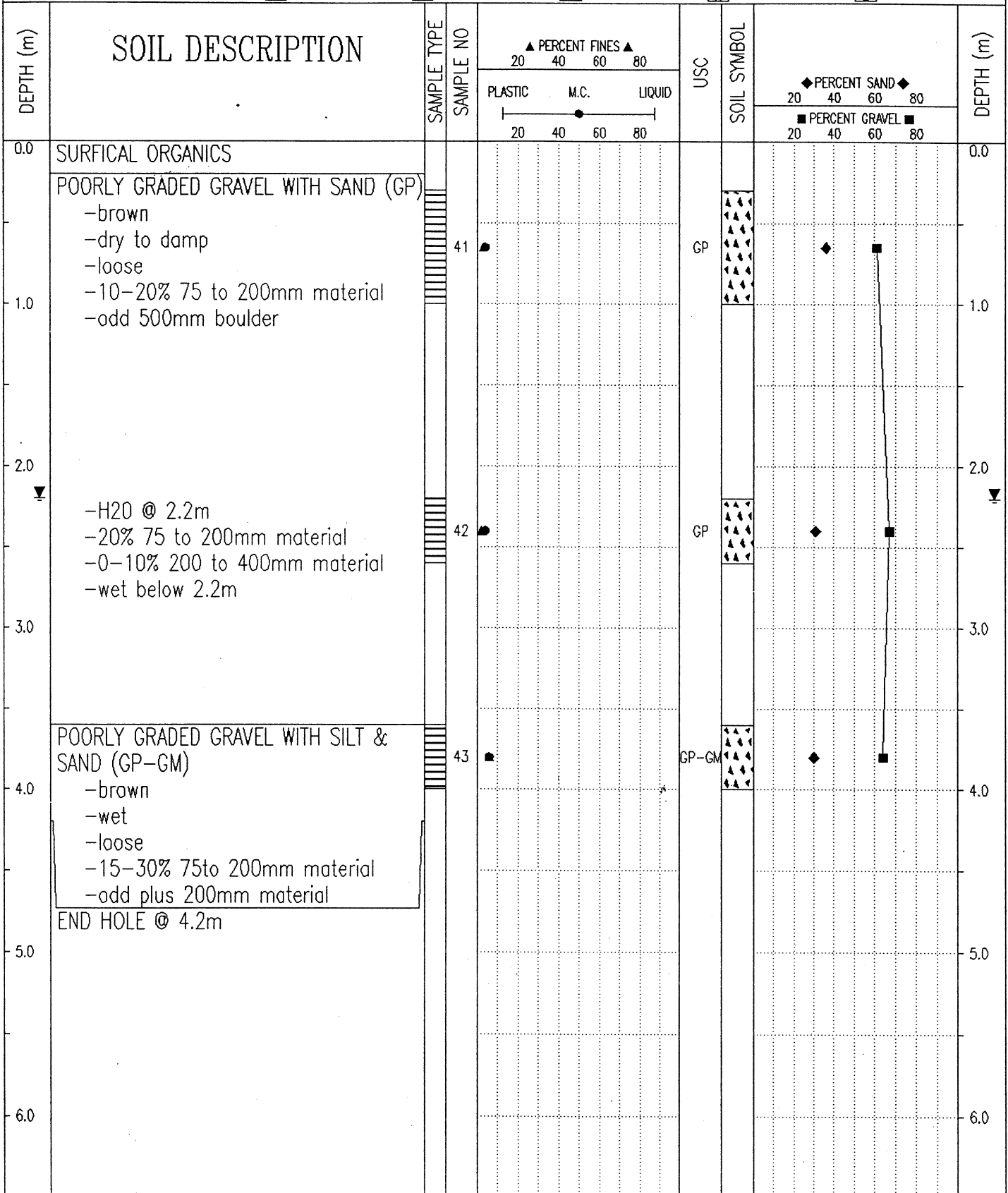
COMPLETION DEPTH: 4.2 m
 COMPLETE: 01/07/21

SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST PIT NO: 610-14
ENGINEERING CAPITAL	KM 1776.0 LHS A/H	Project No: 092-202101-0361
KAMATSU 220 EXCAVATOR	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)
SAMPLE TYPE <input checked="" type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE		



Government of Yukon Transportation Engineering	LOGGED BY: JRP.	COMPLETION DEPTH: 4.2 m
	REVIEWED BY:	COMPLETE: 01/07/21
	Fig. No: 115-G-06A	Page 1 of 1

SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST PIT NO: 610-15
ENGINEERING CAPITAL	KM 1776.0 LHS A/H	Project No: 092-202101-0361
KAMATSU 220 EXCAVATOR	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)
SAMPLE TYPE	<input checked="" type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE	



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LOGGED BY: JRP.

REVIEWED BY:

Fig. No: 115-G-06A

COMPLETION DEPTH: 4.2 m

COMPLETE: 01/07/21

Page 1 of 1

Pit 115 G-06A
Km 1776 LHS Alaska Highway
(Burwash Creek)

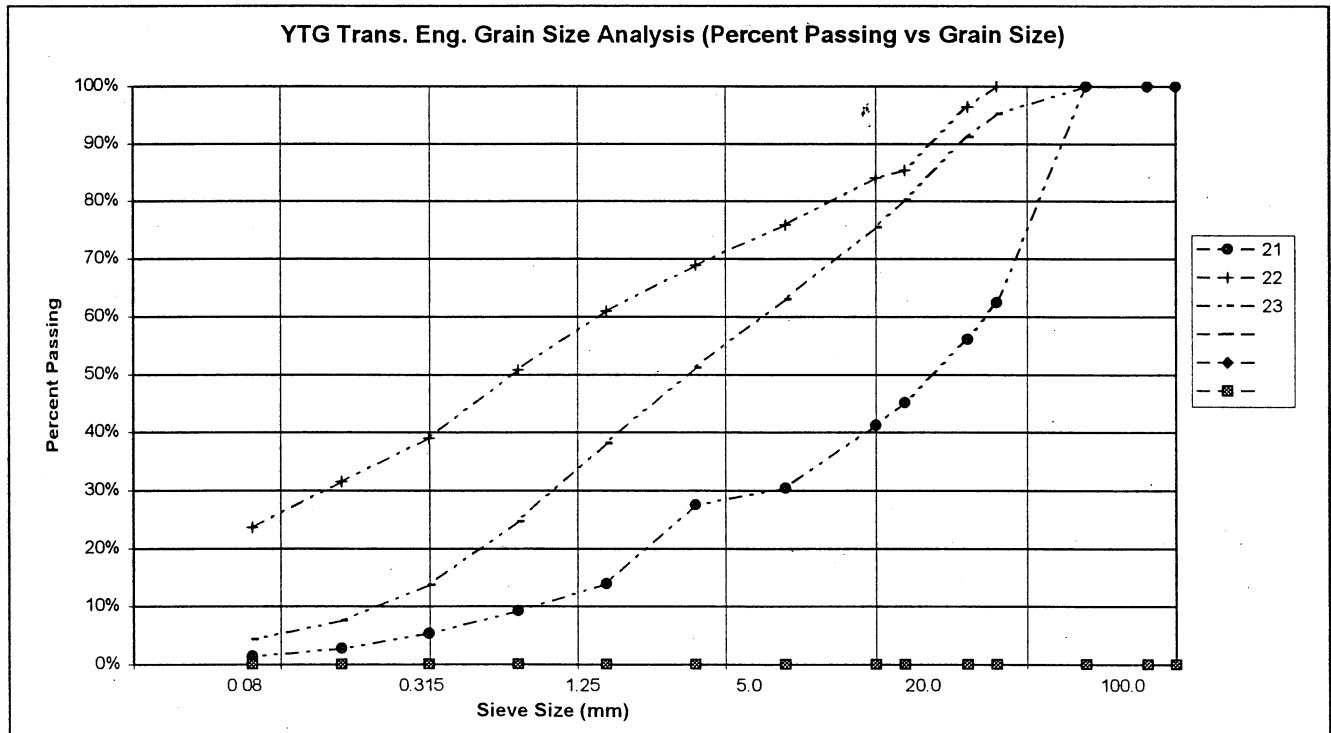
2001
Pit Run Sample Results

PROJECT NUMBER: 092-202101-388-100
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SHAKWAK SEG 11
 PROJECT LOCATION: Km 1776 LHS A/H
 DRILL UNIT: Kamatsu 220 Backhoe
 HOLE LOCATION: See Plan
 LOGGED BY: JRP

HOLE No.: 610-08

DATE COMP: 2001/07/20

FIELD NO:	21	22	23		
LAB NO:	1070	1071	1072		
DEPTH:	0.5-1.0	1.6-2.1	3.0-3.6		
TYPE:	BULK	BULK	BULK	AUGER	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%		
80.0	100%	100%	100%		
50.0	100%	100%	100%		
25.0	62%	100%	95%		
20.0	56%	96%	91%		
12.5	45%	85%	80%		
10.0	41%	84%	75%		
5.0	30%	76%	63%		
2.5	28%	69%	51%		
1.25	14%	61%	38%		
0.630	9%	51%	25%		
0.315	5%	39%	14%		
0.160	3%	32%	8%		
0.080	1%	24%	4%		
M.C.(%)	2%	11%	7%		
LIQUID LIMIT:	0.0	0.0	0.0		
PLASTIC LIMIT:	0.0	0.0	0.0		
PLASTIC INDEX:	0.0	0.0	0.0		
% GRAVEL:	70	24	37		
% SAND:	29	52	59		
% FINES:	1	24	4		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	SILTY SAND WITH GRAVEL (SM)	WELL-GRADED SAND WITH GRAVEL (SW)		

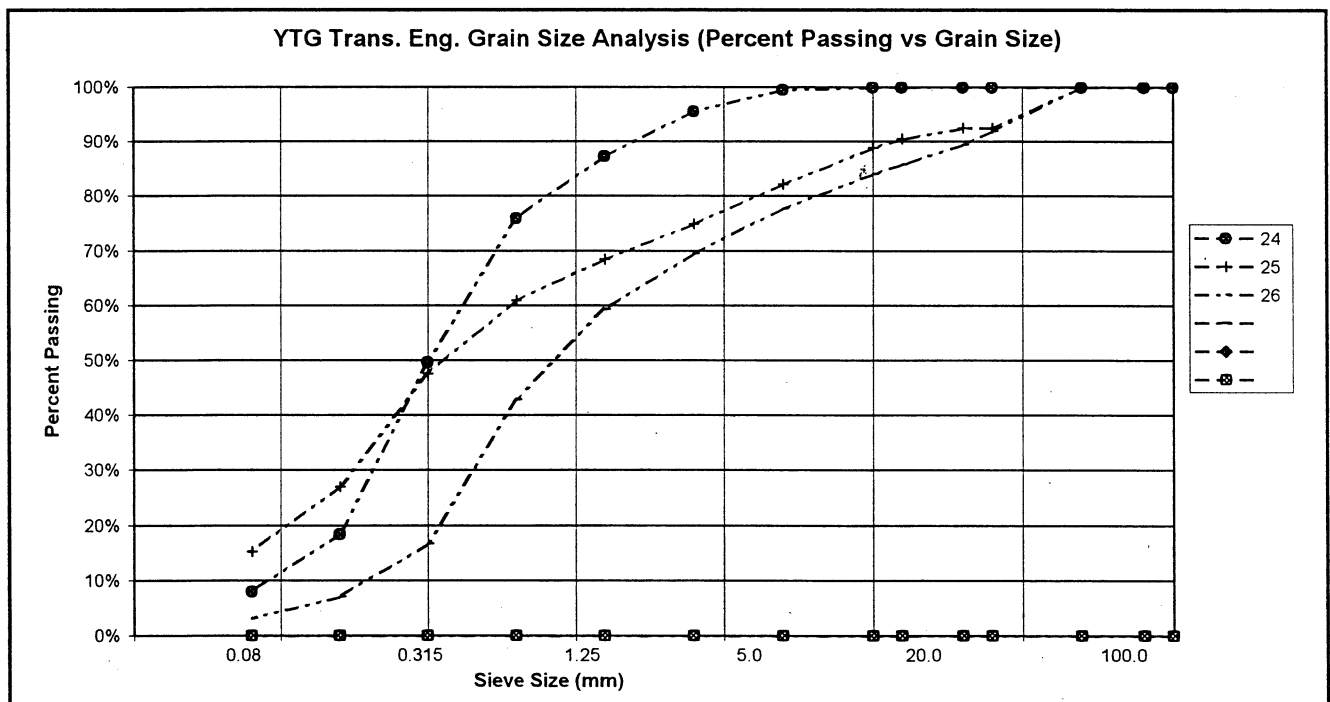


PROJECT NUMBER: 092-202101-388-100
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SHAKWAK SEG 11
 PROJECT LOCATION: Km 1776 LHS A/H
 DRILL UNIT: Kamatsu 220 Backhoe
 HOLE LOCATION: See Plan
 LOGGED BY: JRP

HOLE No.: 610-09

DATE COMP: 2001/07/20

FIELD NO:	24	25	26		
LAB NO:	1073	1074	1075		
DEPTH:	0.8-1.2	2.8-3.2	4.0-4.4		
TYPE:	BULK	BULK	BULK	AUGER	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%		
80.0	100%	100%	100%		
50.0	100%	100%	100%		
25.0	100%	92%	92%		
20.0	100%	92%	89%		
12.5	100%	90%	86%		
10.0	100%	89%	84%		
5.0	99%	82%	78%		
2.5	95%	75%	70%		
1.25	87%	68%	59%		
0.630	76%	61%	43%		
0.315	50%	48%	17%		
0.160	18%	27%	7%		
0.080	8%	15%	3%		
M.C.(%):	3%	6%	5%		
LIQUID LIMIT:	0.0	0.0	0.0		
PLASTIC LIMIT:	0.0	0.0	0.0		
PLASTIC INDEX:	0.0	0.0	0.0		
% GRAVEL:	1	18	22		
% SAND:	91	67	75		
% FINES:	8	15	3		
CLASSIFICATION	POORLY GRADED SAND WITH SILT (SP-SM)	SILTY SAND WITH GRAVEL (SM)	POORLY GRADED SAND WITH GRAVEL (SP)		

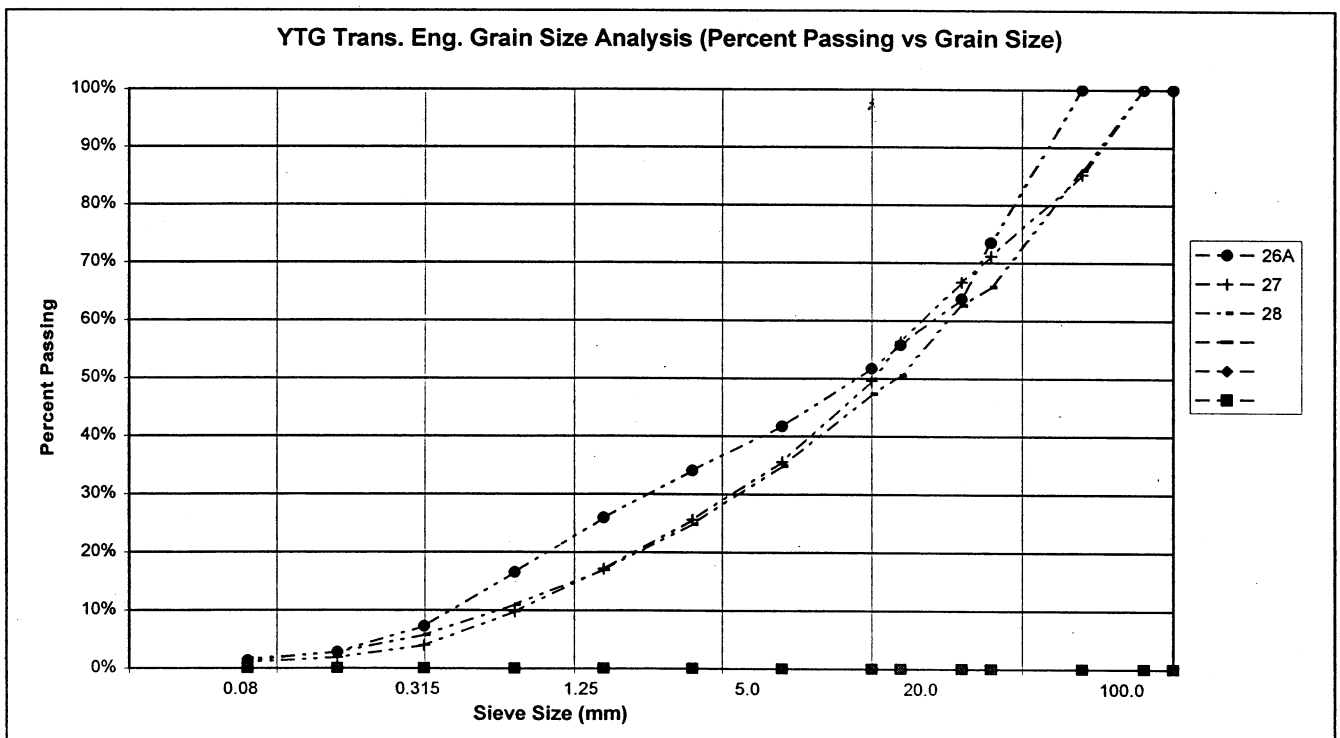


PROJECT NUMBER: 092-202101-388-100
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SHAKWAK SEG 11
 PROJECT LOCATION: Km 1776 LHS A/H
 DRILL UNIT: Kamatsu 220 Backhoe
 HOLE LOCATION: See Plan
 LOGGED BY: JRP

HOLE No.: 610-10

DATE COMP: 2001/07/21

FIELD NO:	26A	27	28		
LAB NO:	1076	1077	1078		
DEPTH:	0.5-1.0	1.8-2.2	3.2-3.6		
TYPE:	BULK	BULK	BULK	AUGER	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%		
80.0	100%	100%	100%		
50.0	100%	85%	86%		
25.0	73%	71%	66%		
20.0	64%	67%	63%		
12.5	56%	56%	51%		
10.0	52%	50%	47%		
5.0	42%	36%	35%		
2.5	34%	26%	25%		
1.25	26%	17%	17%		
0.630	17%	10%	11%		
0.315	7%	4%	6%		
0.160	3%	2%	3%		
0.080	1%	1%	2%		
M.C.(%):	2%	2%	3%		
LIQUID LIMIT:	0.0	0.0	0.0		
PLASTIC LIMIT:	0.0	0.0	0.0		
PLASTIC INDEX.:	0.0	0.0	0.0		
% GRAVEL:	58	64	65		
% SAND:	40	34	33		
% FINES:	1	1	2		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)		

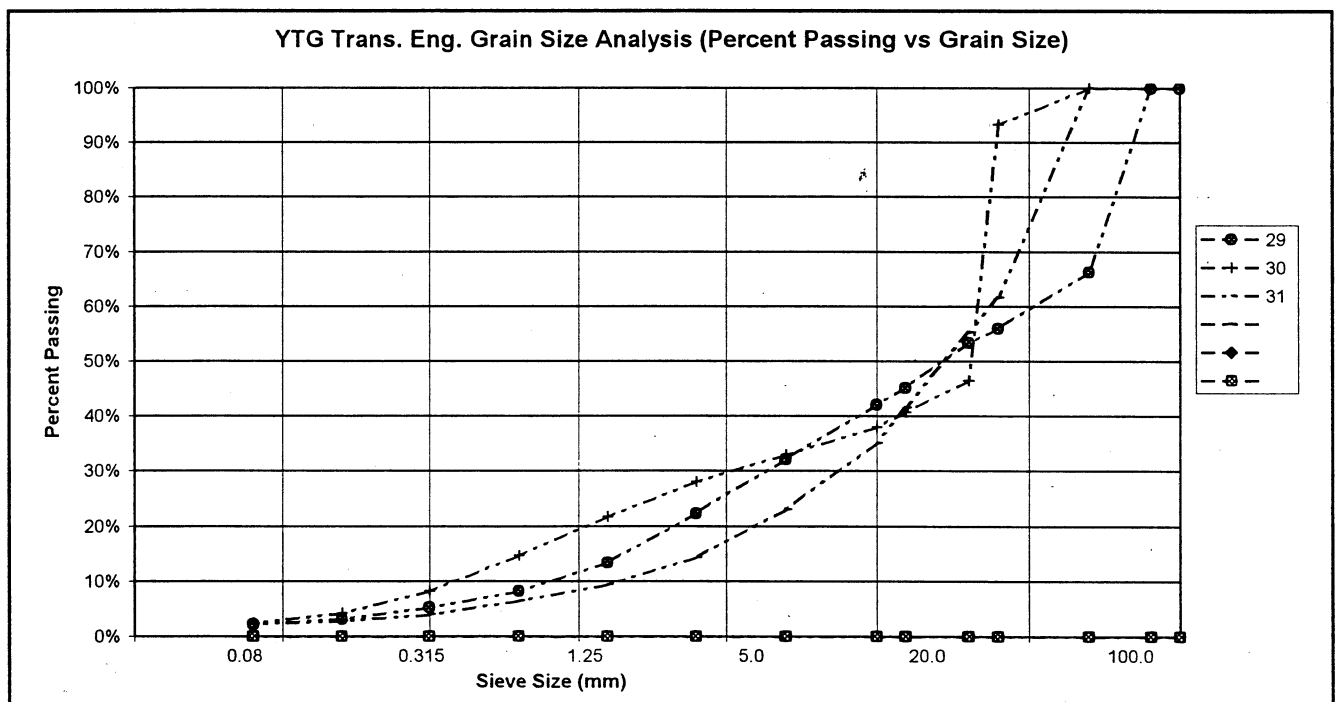


PROJECT NUMBER: 092-202101-388-100
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SHAKWAK SEG 11
 PROJECT LOCATION: Km 1776 LHS A/H
 DRILL UNIT: Kamatsu 220 Backhoe
 HOLE LOCATION: See Plan
 LOGGED BY: JRP

HOLE No.: 610.11

DATE COMP: 2001/07/21

FIELD NO:	29	30	31		
LAB NO:	1079	1080	1081		
DEPTH:	0.6-1.0	2.0-2.4	3.6-4.0		
TYPE:	BULK	BULK	BULK	AUGER	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%		
80.0	100%	100%	100%		
50.0	66%	100%	100%		
25.0	56%	93%	62%		
20.0	53%	46%	55%		
12.5	45%	41%	42%		
10.0	42%	38%	35%		
5.0	32%	33%	23%		
2.5	22%	28%	14%		
1.25	13%	22%	9%		
0.630	8%	15%	6%		
0.315	5%	8%	4%		
0.160	3%	4%	3%		
0.080	2%	2%	2%		
M.C.(%)	2%	3%	3%		
LIQUID LIMIT:	0.0	0.0	0.0		
PLASTIC LIMIT:	0.0	0.0	0.0		
PLASTIC INDEX:	0.0	0.0	0.0		
% GRAVEL:	68	67	77		
% SAND:	30	31	21		
% FINES:	2	2	2		
CLASSIFICATION	POORLY GRADED GRAVELLY WITH SAND (GP)	POORLY GRADED GRAVELLY WITH SAND (GP)	POORLY GRADED GRAVELLY WITH SAND (GP)		

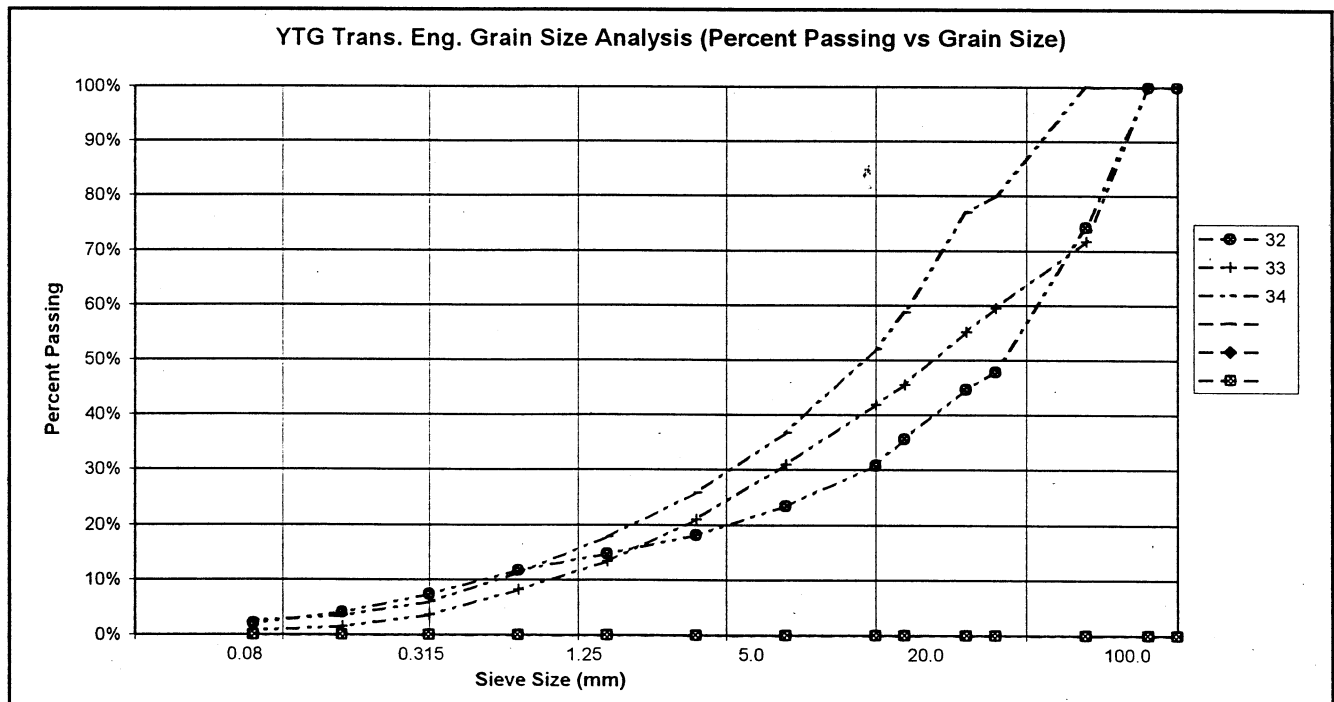


PROJECT NUMBER: 092-202101-388-100
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SHAKWAK SEG 11
 PROJECT LOCATION: Km 1776 LHS A/H
 DRILL UNIT: Kamatsu 220 Backhoe
 HOLE LOCATION: See Plan
 LOGGED BY: JRP

HOLE No.: 610-12

DATE COMP: 2001/07/21

FIELD NO:	32	33	34		
LAB NO:	1082	1083	1084		
DEPTH:	0.6-1.0	2.6-3.4	3.6-4.2		
TYPE:	BULK	BULK	BULK	AUGER	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%		
80.0	100%	100%	100%		
50.0	74%	72%	100%		
25.0	48%	60%	80%		
20.0	45%	55%	77%		
12.5	36%	46%	59%		
10.0	31%	42%	52%		
5.0	24%	31%	37%		
2.5	18%	21%	26%		
1.25	15%	13%	18%		
0.630	12%	8%	11%		
0.315	7%	4%	6%		
0.160	4%	1%	3%		
0.080	2%	1%	3%		
M.C.(%):	3%	3%	5%		
LIQUID LIMIT:	0.0	0.0	0.0		
PLASTIC LIMIT:	0.0	0.0	0.0		
PLASTIC INDEX:	0.0	0.0	0.0		
% GRAVEL:	76	69	63		
% SAND:	21	30	34		
% FINES:	2	1	3		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)		

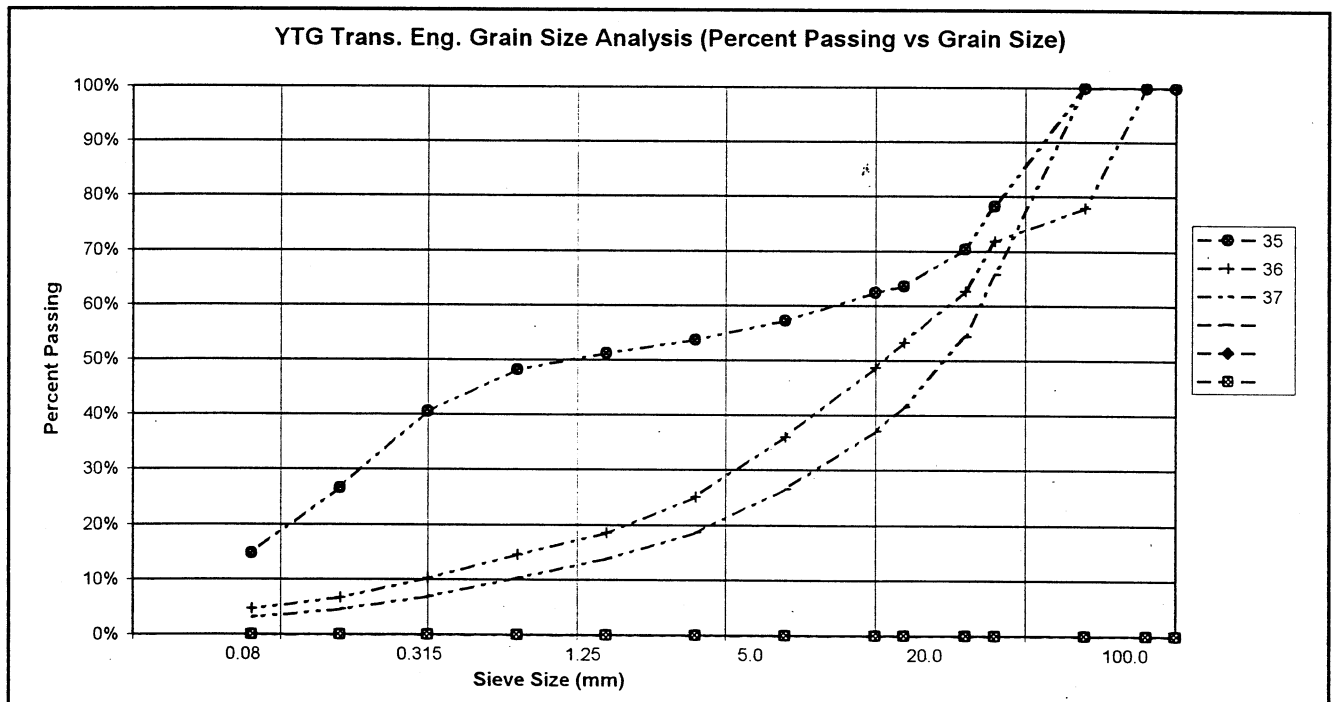


PROJECT NUMBER: 092-202101-388-100
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SHAKWAK SEG 11
 PROJECT LOCATION: Km 1776 LHS A/H
 DRILL UNIT: Kamatsu 220 Backhoe
 HOLE LOCATION: See Plan
 LOGGED BY: JRP

HOLE No.: 610-13

DATE COMP: 2001/07/21

FIELD NO:	35	36	37		
LAB NO:	1085	1086	1087		
DEPTH:	0.6-1.2	2.4-2.8	3.8-4.2		
TYPE:	BULK	BULK	BULK	AUGER	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%		
80.0	100%	100%	100%		
50.0	100%	78%	100%		
25.0	78%	72%	66%		
20.0	70%	63%	54%		
12.5	64%	53%	41%		
10.0	62%	49%	37%		
5.0	57%	36%	27%		
2.5	54%	25%	19%		
1.25	51%	19%	14%		
0.630	48%	15%	10%		
0.315	41%	10%	7%		
0.160	27%	7%	5%		
0.080	15%	5%	3%		
M.C.(%)	10%	4%	4%		
LIQUID LIMIT:	0.0	0.0	0.0		
PLASTIC LIMIT:	0.0	0.0	0.0		
PLASTIC INDEX:	0.0	0.0	0.0		
% GRAVEL:	43	64	73		
% SAND:	42	31	23		
% FINES:	15	5	3		
CLASSIFICATION	SILTY GRAVEL WITH SAND (GM)	POORLY GRADED GRAVEL WITH SAND (GP)	WELL-GRADED GRAVEL WITH SAND (GW)		

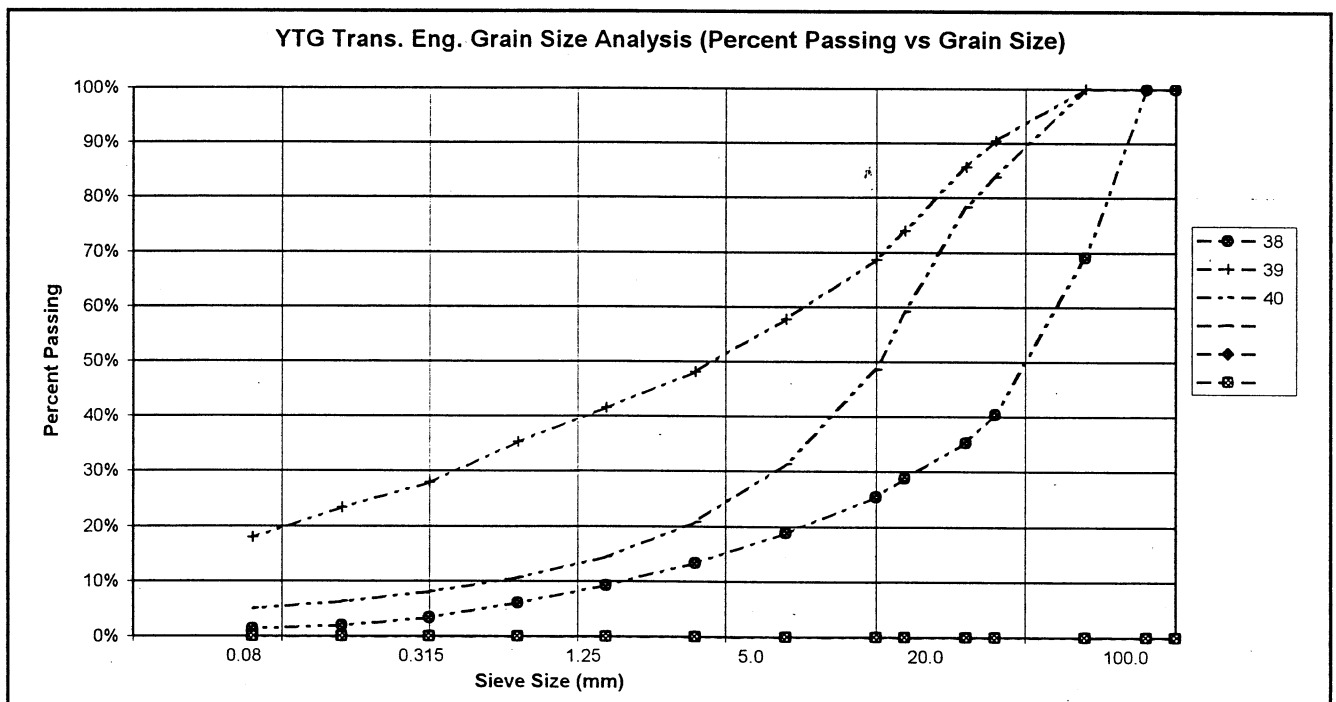


PROJECT NUMBER: 092-202101-388-100
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SHAKWAK SEG 11
 PROJECT LOCATION: Km 1776 LHS A/H
 DRILL UNIT: Kamatsu 220 Backhoe
 HOLE LOCATION: See Plan
 LOGGED BY: JRP

HOLE No.: 610-14

DATE COMP: 2001/07/21

FIELD NO:	38	39	40		
LAB NO:	1088	1089	1090		
DEPTH:	0.6-1.2	2.2-2.6	3.2-3.6		
TYPE:	BULK	BULK	BULK	AUGER	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%		
80.0	100%	100%	100%		
50.0	69%	100%	100%		
25.0	40%	90%	84%		
20.0	35%	86%	78%		
12.5	29%	74%	59%		
10.0	25%	69%	49%		
5.0	19%	58%	31%		
2.5	13%	48%	21%		
1.25	9%	42%	14%		
0.630	6%	35%	11%		
0.315	3%	28%	8%		
0.160	2%	23%	6%		
0.080	1%	18%	5%		
M.C.(%)	4%	12%	7%		
LIQUID LIMIT:	0.0	0.0	0.0		
PLASTIC LIMIT:	0.0	0.0	0.0		
PLASTIC INDEX:	0.0	0.0	0.0		
% GRAVEL:	81	42	69		
% SAND:	17	40	26		
% FINES:	1	18	5		
CLASSIFICATION	WELL-GRADED GRAVEL WITH SAND (GW)	SILTY GRAVEL WITH SAND (GM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)		

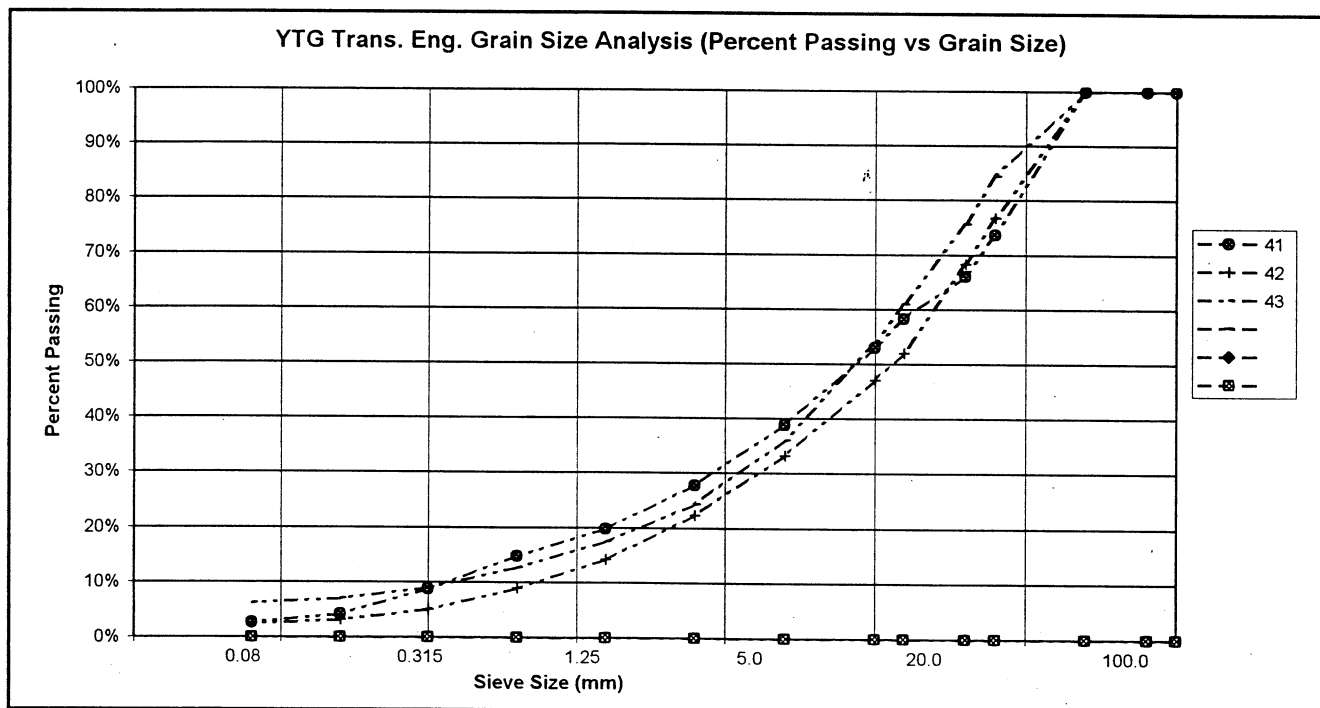


PROJECT NUMBER: 092-202101-388-100
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SHAKWAK SEG 11
 PROJECT LOCATION: Km 1776 LHS A/H
 DRILL UNIT: Kamatsu 220 Backhoe
 HOLE LOCATION: See Plan
 LOGGED BY: JRP

HOLE No.: 610-15

DATE COMP: 2001/07/21

FIELD NO:	41	42	43		
LAB NO:	1091	1092	1093		
DEPTH:	0.3-1.0	2.2-2.6	3.6-4.0		
TYPE:	BULK	BULK	BULK	AUGER	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%		
80.0	100%	100%	100%		
50.0	100%	100%	100%		
25.0	74%	77%	84%		
20.0	66%	68%	76%		
12.5	58%	52%	61%		
10.0	53%	47%	54%		
5.0	39%	33%	36%		
2.5	28%	22%	24%		
1.25	20%	14%	17%		
0.630	15%	9%	13%		
0.315	9%	5%	9%		
0.160	4%	3%	7%		
0.080	3%	2%	6%		
M.C.(%)	4%	4%	6%		
LIQUID LIMIT:	0.0	0.0	0.0		
PLASTIC LIMIT:	0.0	0.0	0.0		
PLASTIC INDEX:	0.0	0.0	0.0		
% GRAVEL:	61	67	64		
% SAND:	36	31	30		
% FINES:	3	2	6		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)		



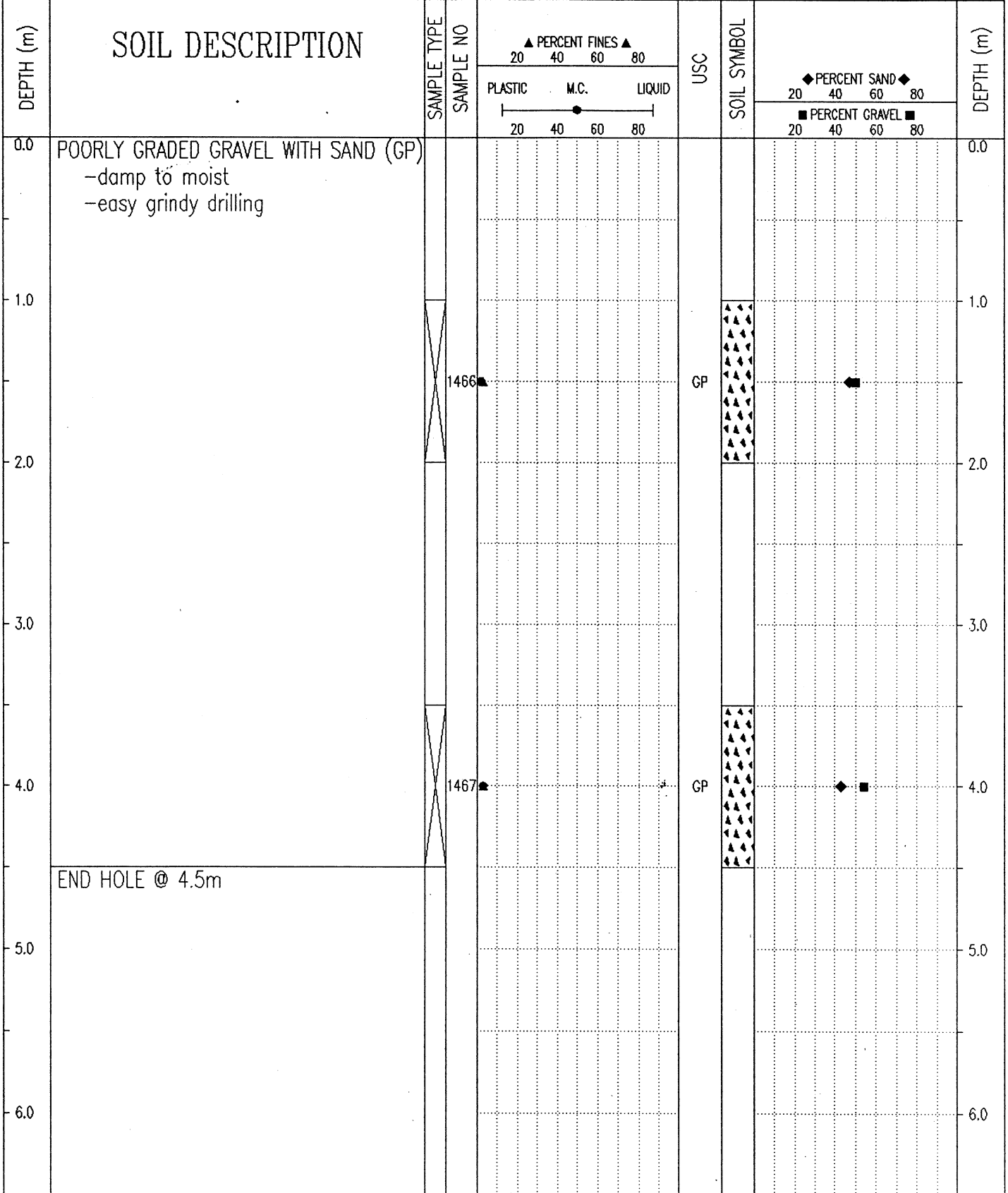
Pit 115 G-06A
Km 1776 LHS Alaska Highway
(Burwash Creek)

2001
Auger Hole Logs

SUBSURFACE EXPLORATION & TESTING REPORT.		SHAKWAK SEG 11		TEST HOLE NO: 626-1966				
ENGINEERING CAPITAL		BURWASH CREEK RHS		Project No: 092-202101-0361				
NODWELL B40L 6" AUGER		LOCATION: 1775+900 300M RT.		ELEVATION: 0.00 (m)				
SAMPLE TYPE		<input checked="" type="checkbox"/> RETURN	<input checked="" type="checkbox"/> S.P.T.	<input checked="" type="checkbox"/> AUGER	<input type="checkbox"/> BULK	<input type="checkbox"/> TUBE	<input type="checkbox"/> CORE	
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲		USC	SOIL SYMBOL	DEPTH (m)
				20 40 60 80	PLASTIC M.C. LIQUID			
0.0	POORLY GRADED GRAVEL WITH SAND (GP) -moist -grindy drilling							0.0
1.0								1.0
2.0	-easy grindy drilling below 1.1m		1464			GP		2.0
3.0								3.0
4.0			1465			GP		4.0
5.0	END HOLE @ 4.5m -inconsistent drilling action suspect layered sand and gravel							5.0
6.0								6.0
Government of Yukon Transportation Engineering				LOGGED BY: G.C. REVIEWED BY:		COMPLETION DEPTH: 4.5 m COMPLETE: 01/09/26		
				Fig. No:		Page 1 of 1		

SUBSURFACE EXPLORATION & TESTING REPORT.	SHAKWAK SEG 11	TEST HOLE NO: 626-1967
ENGINEERING CAPITAL	BURWASH CREEK RHS	Project No: 092-202101-0361
NODWELL B40L 6" AUGER	LOCATION: 1775+900 400M RT.	ELEVATION: 0.00 (m)

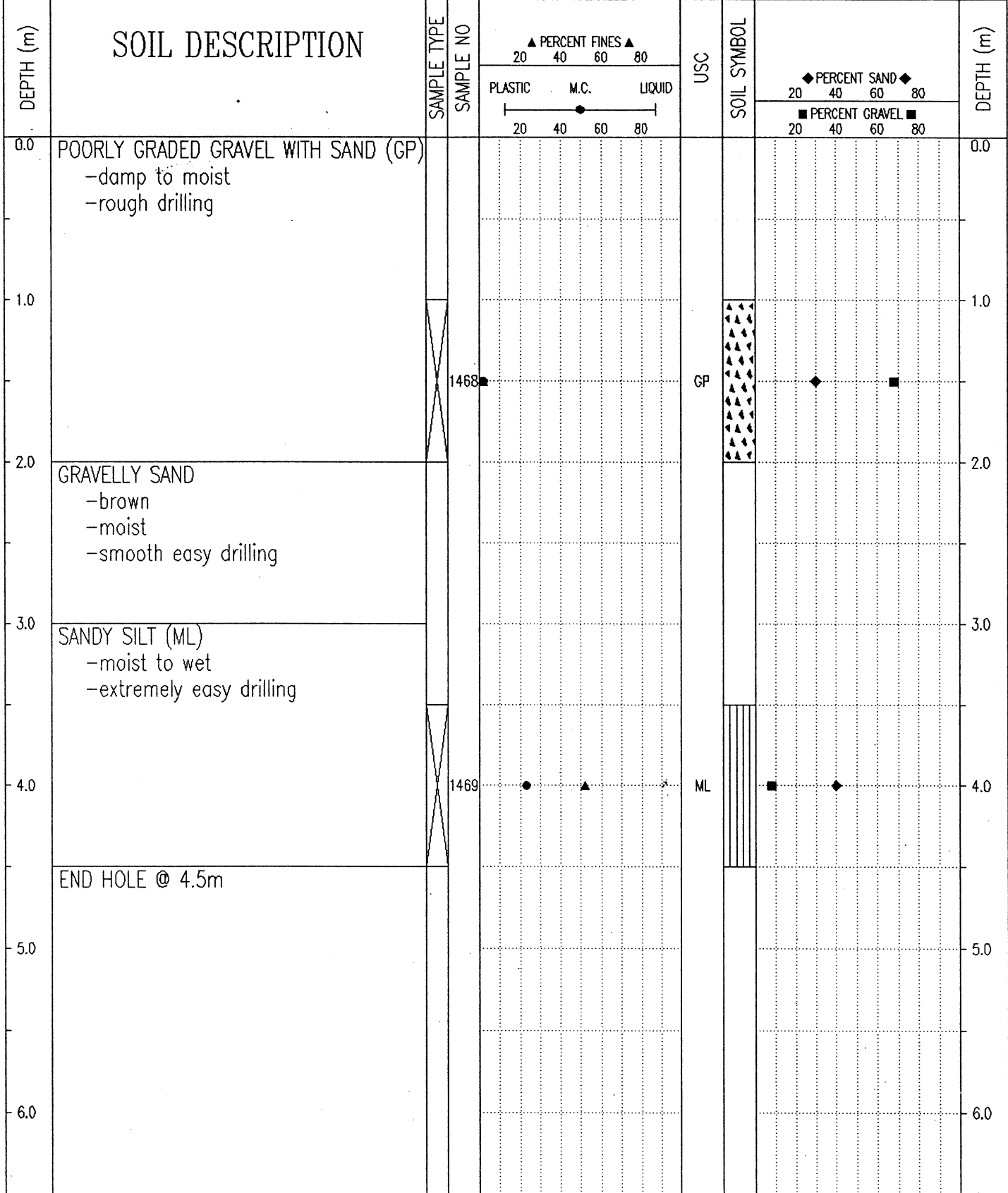
SAMPLE TYPE RETURN S.P.T. AUGER BULK TUBE CORE



Government of Yukon Transportation Engineering	LOGGED BY: G.C.	COMPLETION DEPTH: 4.5 m
	REVIEWED BY:	COMPLETE: 01/09/26
	Fig. No:	Page 1 of 1

SUBSURFACE EXPLORATION & TESTING REPORT.	SHAKWAK SEG 11	TEST HOLE NO: 626-1968
ENGINEERING CAPITAL	BURWASH CREEK RHS	Project No: 092-202101-0361
NODWELL B40L 6" AUGER	LOCATION: 1775+850 200M RT.	ELEVATION: 0.00 (m)

SAMPLE TYPE RETURN S.P.T. AUGER BULK TUBE CORE

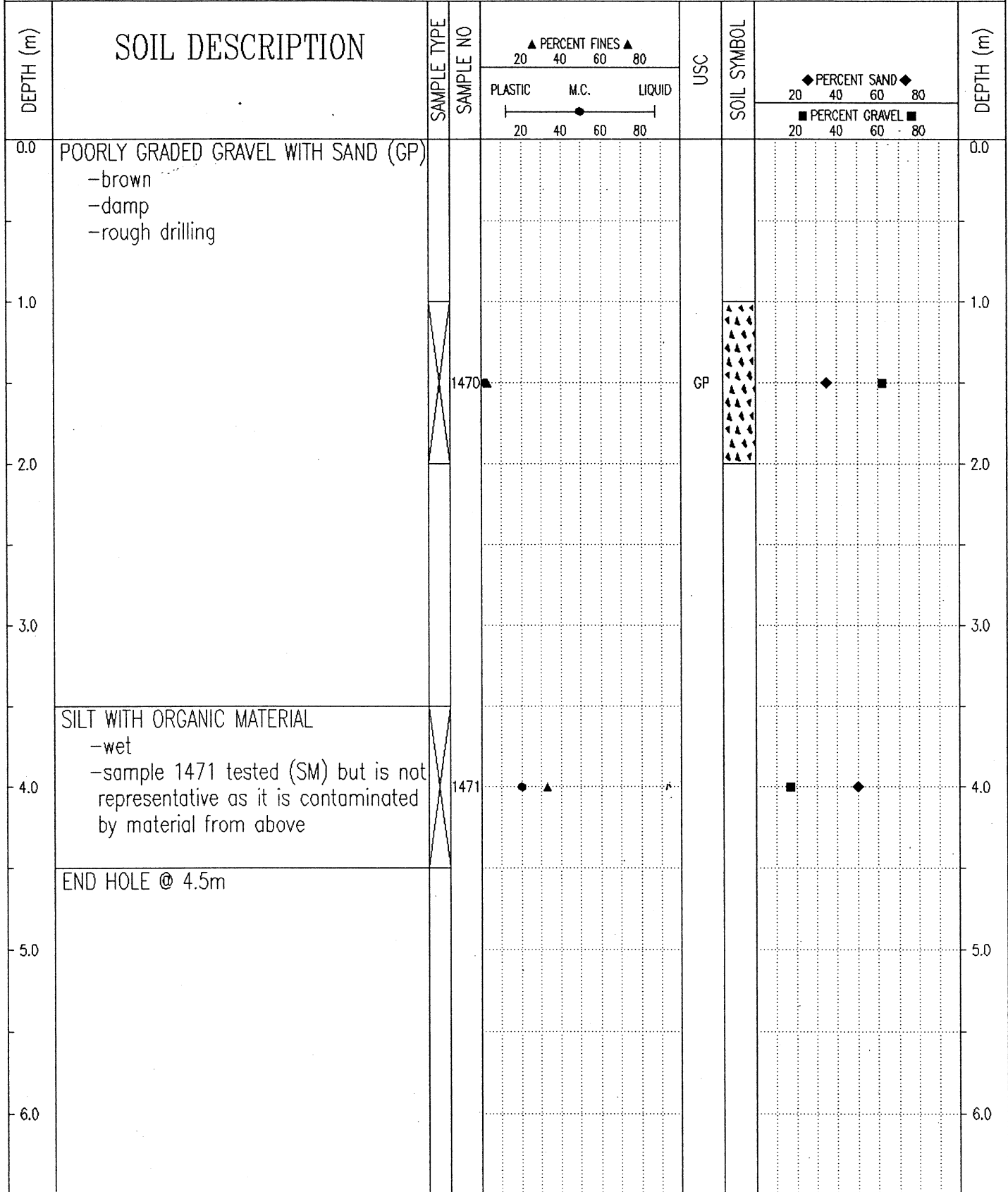


Government of Yukon
Transportation Engineering

LOGGED BY: G.C.
REVIEWED BY:
Fig. No:

COMPLETION DEPTH: 4.5 m
COMPLETE: 01/09/26
Page 1 of 1

SUBSURFACE EXPLORATION & TESTING REPORT.	SHAKWAK SEG 11	TEST HOLE NO: 626-1969
ENGINEERING CAPITAL	BURWASH CREEK RHS	Project No: 092-202101-0361
NODWELL B40L 6" AUGER	LOCATION: 1775+800 400M RT.	ELEVATION: 0.00 (m)
SAMPLE TYPE <input checked="" type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE		

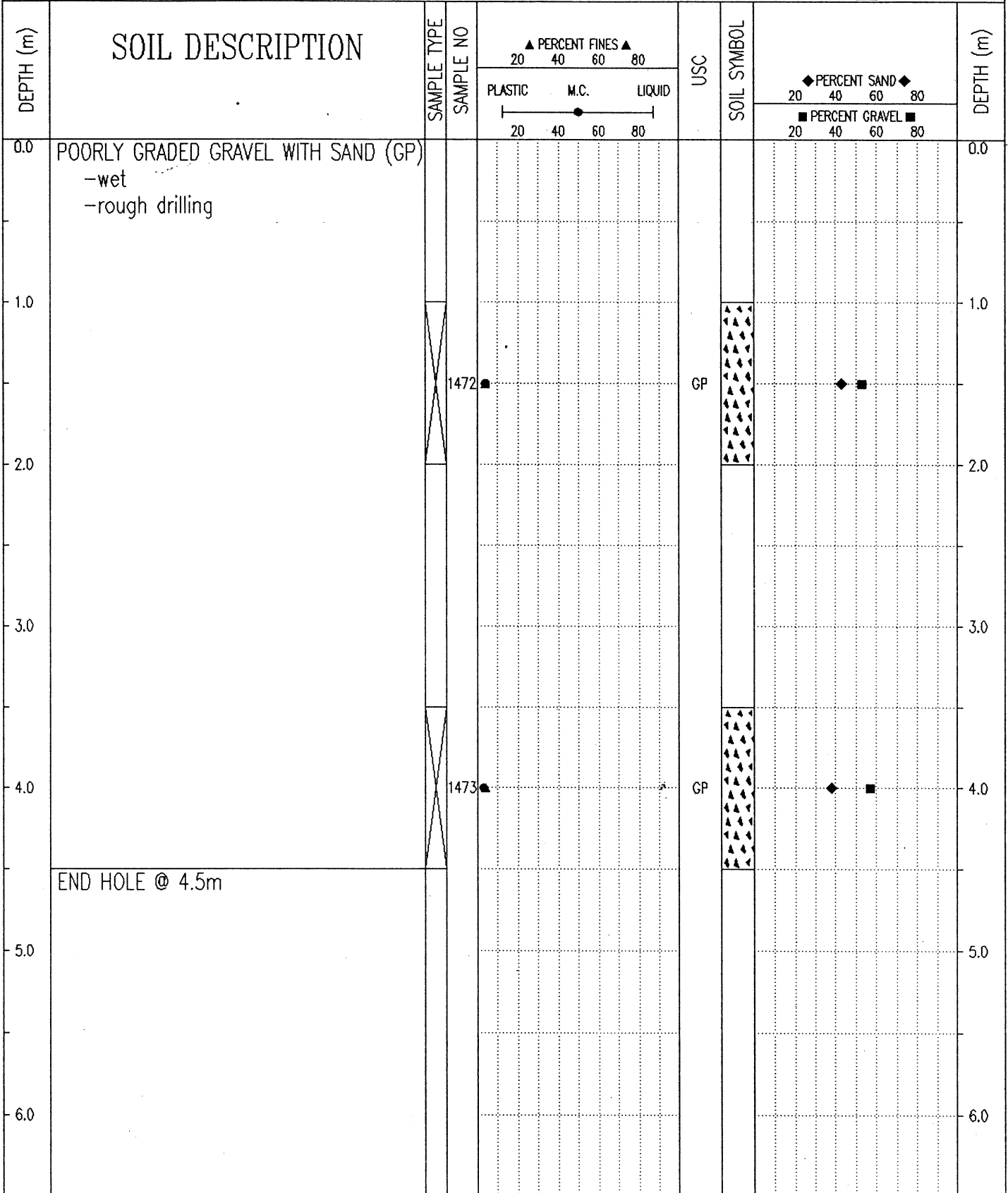


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Transportation Engineering

LOGGED BY: G.C.
REVIEWED BY:
Fig. No:

COMPLETION DEPTH: 4.5 m
COMPLETE: 01/09/26

SUBSURFACE EXPLORATION & TESTING REPORT.		SHAKWAK SEG 11	TEST HOLE NO: 626-1970
ENGINEERING CAPITAL		BURWASH CREEK RHS	Project No: 092-202101-0361
NODWELL B40L 6" AUGER		LOCATION: 1775+800 300M RT.	ELEVATION: 0.00 (m)
SAMPLE TYPE <input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE			

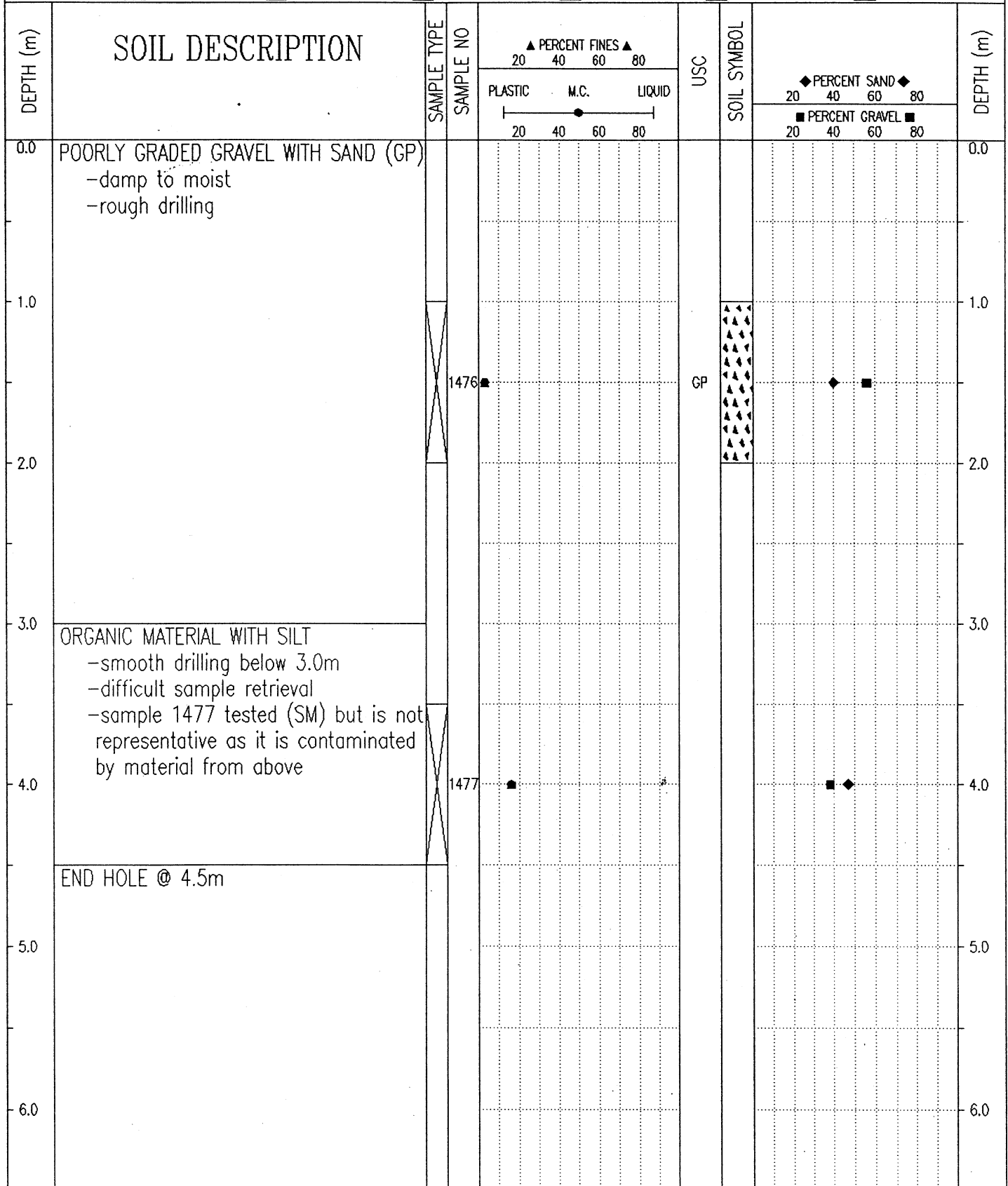


Government of Yukon
Transportation Engineering

LOGGED BY: G.C.	COMPLETION DEPTH: 4.5 m
REVIEWED BY:	COMPLETE: 01/09/26
Fig. No:	Page 1 of 1

SUBSURFACE EXPLORATION & TESTING REPORT.		SHAKWAK SEG 11		TEST HOLE NO: 626-1971								
ENGINEERING CAPITAL		BURWASH CREEK RHS		Project No: 092-202101-0361								
NODWELL B40L 6" AUGER		LOCATION: 1775+800 200M RT.		ELEVATION: 0.00 (m)								
SAMPLE TYPE <input checked="" type="checkbox"/> RETURN		<input checked="" type="checkbox"/> S.P.T.		<input checked="" type="checkbox"/> AUGER								
		<input type="checkbox"/> BULK		<input type="checkbox"/> TUBE								
				<input type="checkbox"/> CORE								
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES ▲			USC	SOIL SYMBOL	PERCENT SAND ◆			DEPTH (m)
				PLASTIC	M.C.	LIQUID			PERCENT GRAVEL ■			
0.0	POORLY GRADED GRAVEL WITH SAND (GP) -brown -moist to wet -grindy drilling										0.0	
1.0											1.0	
2.0			1474				GP				2.0	
3.0	SAND										3.0	
4.0	ORGANIC SANDY SILT (ML) -brown -wet -smooth easy drilling		1475				ML				4.0	
5.0	END HOLE @ 4.5m										5.0	
6.0											6.0	
Government of Yukon Transportation Engineering				LOGGED BY: G.C.		COMPLETION DEPTH: 4.5 m						
				REVIEWED BY:		COMPLETE: 01/09/26						
				Fig. No:		Page 1 of 1						

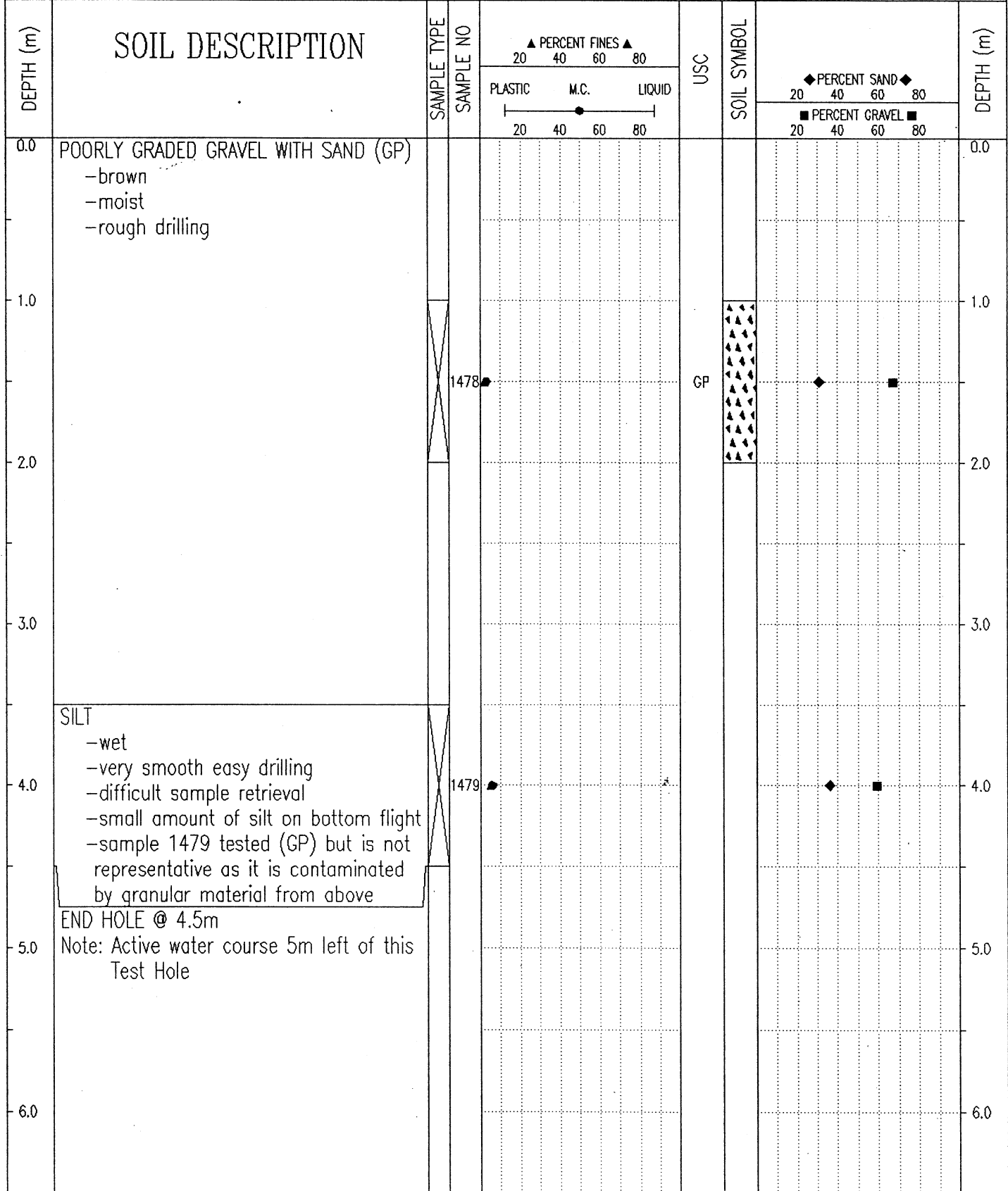
SUBSURFACE EXPLORATION & TESTING REPORT.		SHAKWAK SEG 11	TEST HOLE NO: 626-1972
ENGINEERING CAPITAL		BURWASH CREEK RHS	Project No: 092-202101-0361
NODWELL B40L 6" AUGER		LOCATION: 1775+800 100M RT.	ELEVATION: 0.00 (m)
SAMPLE TYPE <input checked="" type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE			



Government of Yukon Transportation Engineering	LOGGED BY: G.C.	COMPLETION DEPTH: 4.5 m
	REVIEWED BY:	COMPLETE: 01/09/26
	Fig. No:	Page 1 of 1

SUBSURFACE EXPLORATION & TESTING REPORT.	SHAKWAK SEG 11	TEST HOLE NO: 626-1973
ENGINEERING CAPITAL	BURWASH CREEK RHS	Project No: 092-202101-0361
NODWELL B40L 6" AUGER	LOCATION: 1775+625 75M LT.	ELEVATION: 0.00 (m)

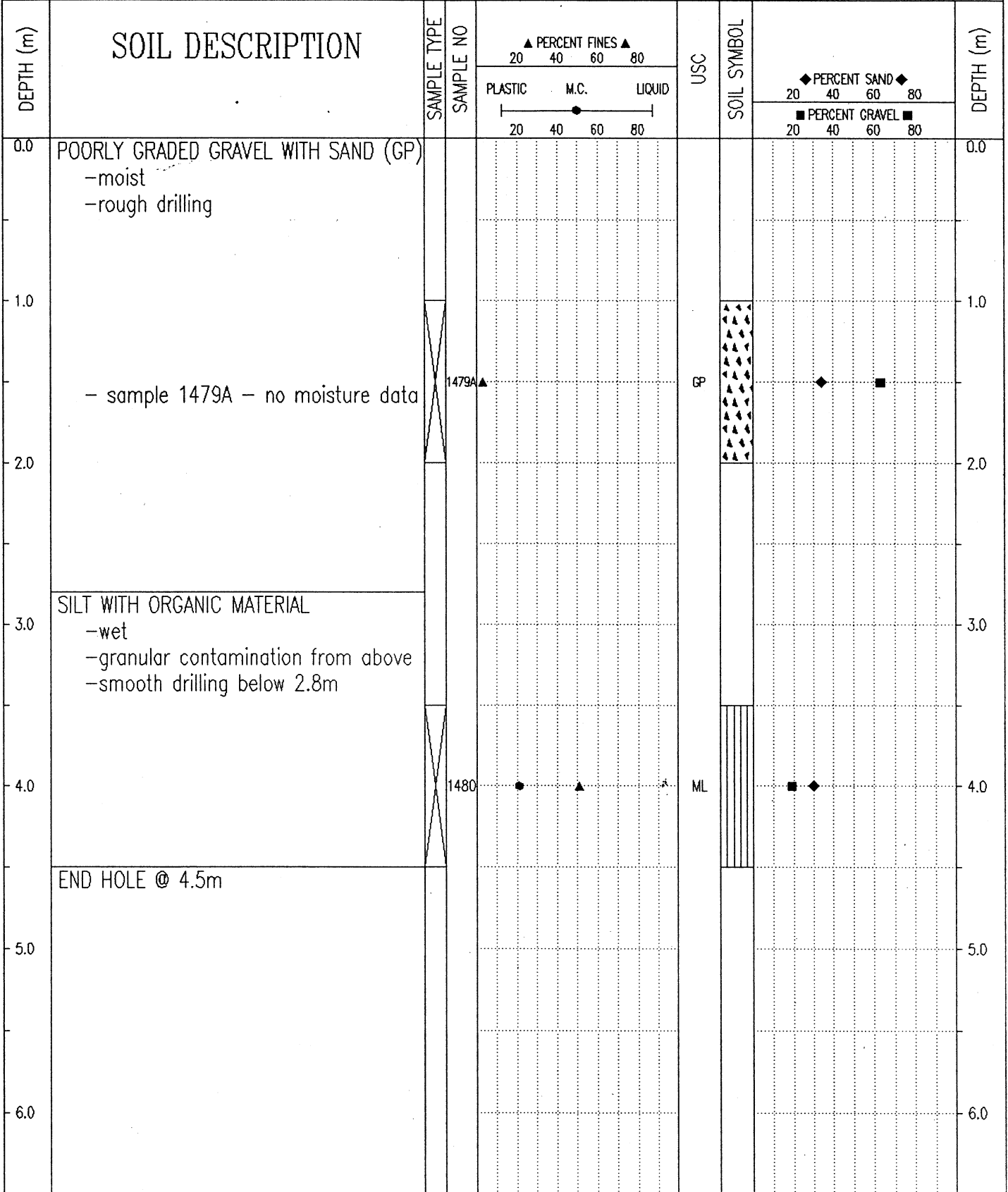
SAMPLE TYPE RETURN S.P.T. AUGER BULK TUBE CORE



Government of Yukon Transportation Engineering	LOGGED BY: G.C.	COMPLETION DEPTH: 4.5 m
	REVIEWED BY:	COMPLETE: 01/09/27
	Fig. No:	Page 1 of 1

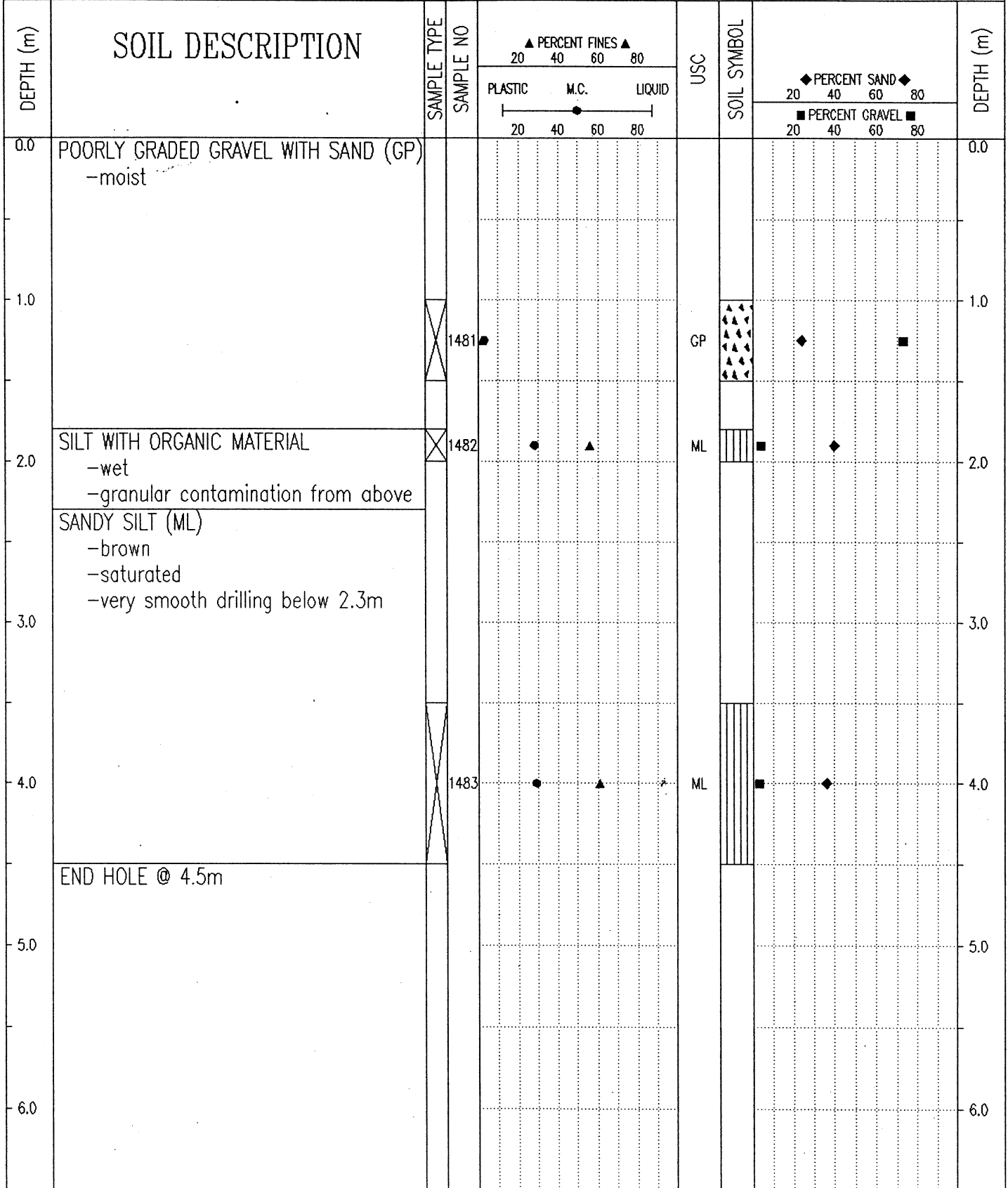
SUBSURFACE EXPLORATION & TESTING REPORT.	SHAKWAK SEG 11	TEST HOLE NO: 626-1974
ENGINEERING CAPITAL	BURWASH CREEK RHS	Project No: 092-202101-0361
NODWELL B40L 6" AUGER	LOCATION: 1775+625 175M LT.	ELEVATION: 0.00 (m)

SAMPLE TYPE RETURN S.P.T. AUGER BULK TUBE CORE



Government of Yukon Transportation Engineering	LOGGED BY: G.C.	COMPLETION DEPTH: 4.5 m
	REVIEWED BY:	COMPLETE: 01/09/27
	Fig. No:	Page 1 of 1

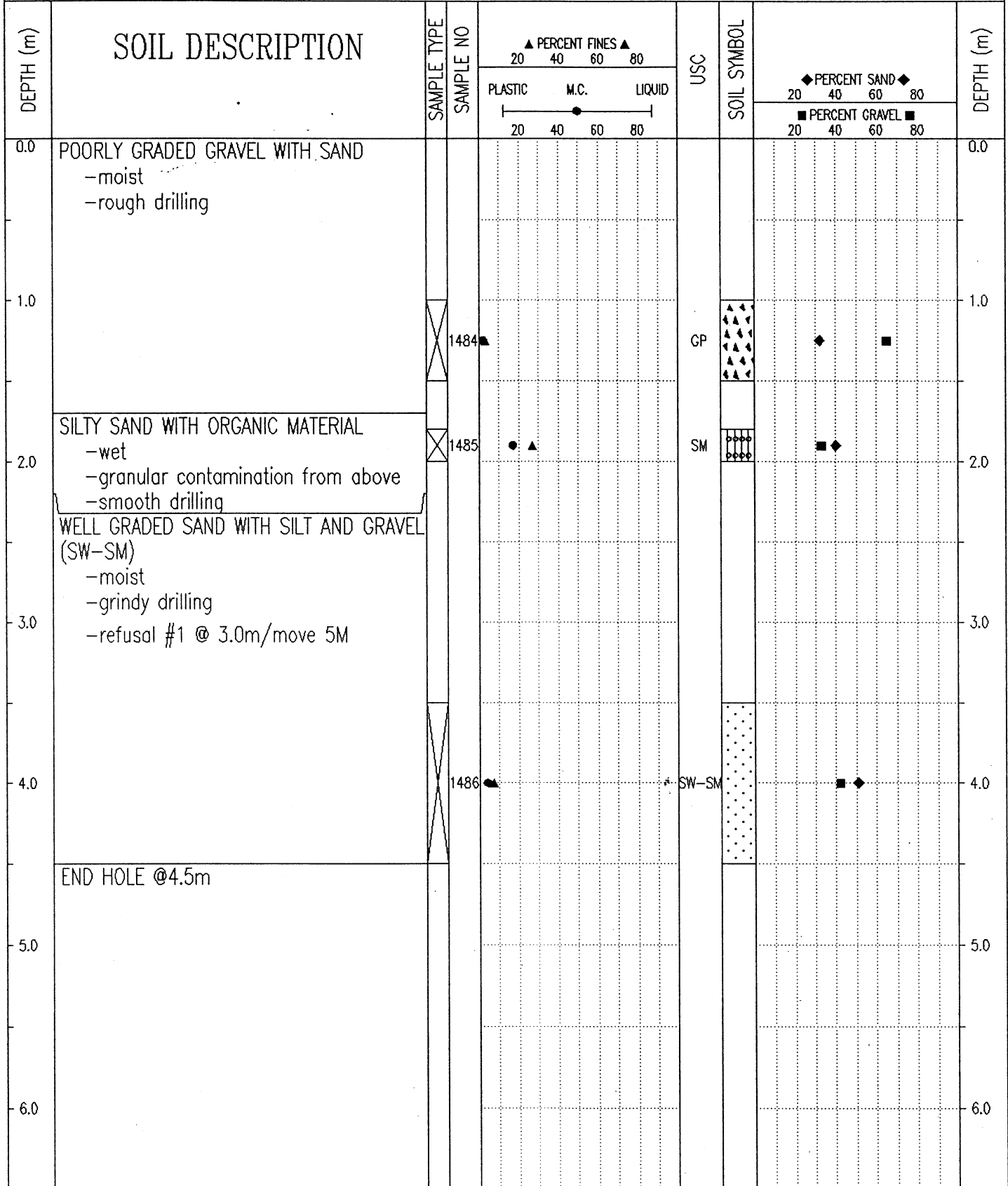
SUBSURFACE EXPLORATION & TESTING REPORT.	SHAKWAK SEG 11	TEST HOLE NO: 626-1975
ENGINEERING CAPITAL	BURWASH CREEK RHS	Project No: 092-202101-0361
NODWELL B40L 6" AUGER	LOCATION: 1775+625 275M LT.	ELEVATION: 0.00 (m)
SAMPLE TYPE <input checked="" type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE		



Government of Yukon Transportation Engineering	LOGGED BY: G.C.	COMPLETION DEPTH: 4.5 m
	REVIEWED BY:	COMPLETE: 01/09/27
	Fig. No:	Page 1 of 1

SUBSURFACE EXPLORATION & TESTING REPORT.	SHAKWAK SEG 11	TEST HOLE NO: 626-1976
ENGINEERING CAPITAL	BURWASH CREEK RHS	Project No: 092-202101-0361
NODWELL B40L 6" AUGER	LOCATION: 1775+625 375M LT.	ELEVATION: 0.00 (m)

SAMPLE TYPE RETURN S.P.T. AUGER BULK TUBE CORE



Government of Yukon
Transportation Engineering

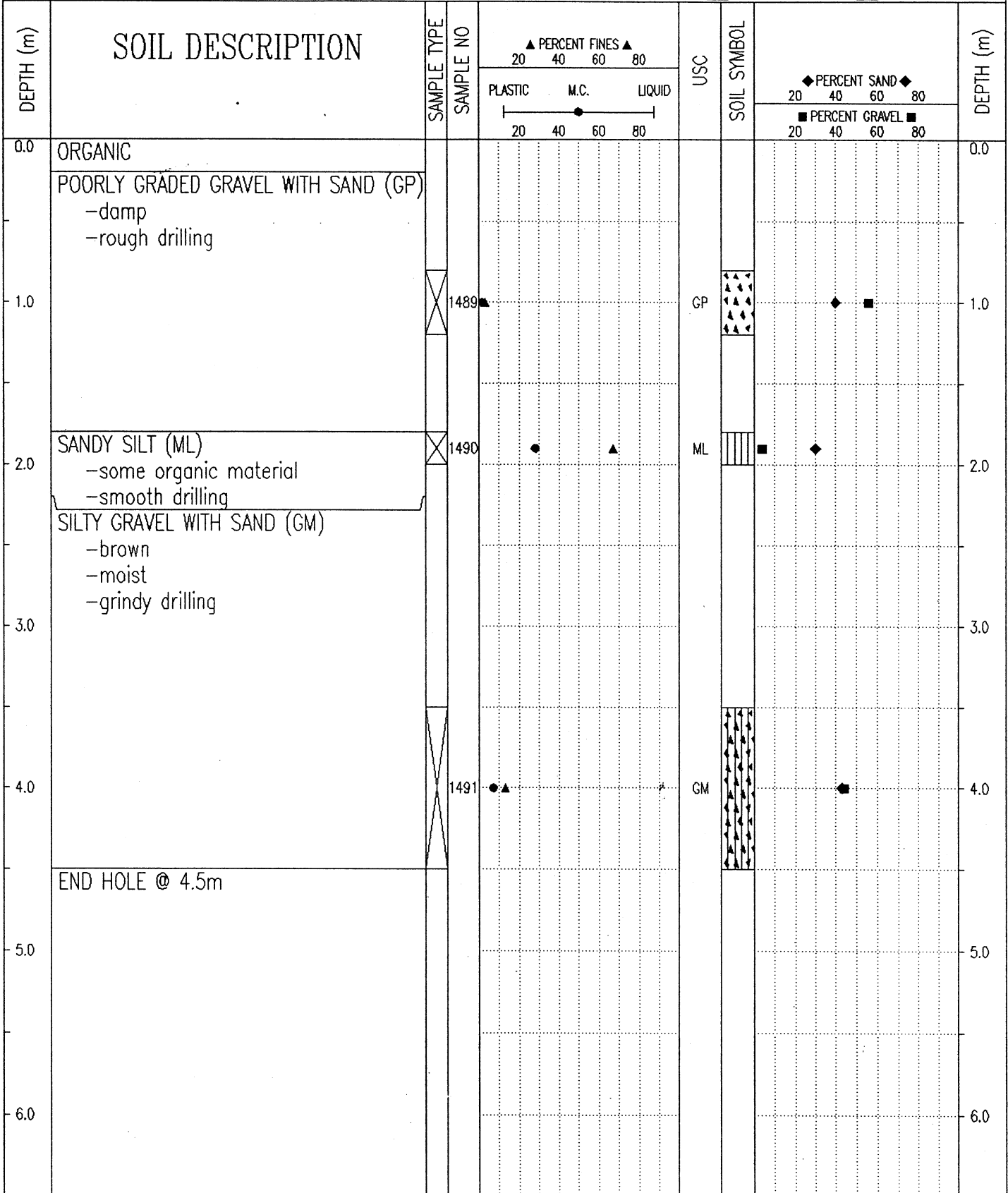
LOGGED BY: G.C.
REVIEWED BY:
Fig. No:

COMPLETION DEPTH: 4.5 m
COMPLETE: 01/09/27

SUBSURFACE EXPLORATION & TESTING REPORT.		SHAKWAK SEG 11		TEST HOLE NO: 626-1977						
ENGINEERING CAPITAL		BURWASH CREEK RHS		Project No: 092-202101-0361						
NODWELL B40L 6" AUGER		LOCATION: 1775+625 500M LT.		ELEVATION: 0.00 (m)						
SAMPLE TYPE		<input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE								
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 PLASTIC M.C. LIQUID -----●----- 20 40 60 80		USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 ■ PERCENT GRAVEL ■ 20 40 60 80		DEPTH (m)
0.0	POORLY GRADED GRAVEL WITH SAND (GP) -brown -moist -rough drilling								0.0	
1.0									1.0	
2.0	-refusal #1 @ 2.0m -very rough drilling below 2.0m		1487			GP			2.0	
3.0									3.0	
4.0			1488			GP			4.0	
5.0	END HOLE @ 4.5m								5.0	
6.0									6.0	
Government of Yukon Transportation Engineering				LOGGED BY: G.C. REVIEWED BY:		COMPLETION DEPTH: 4.5 m COMPLETE: 01/09/27				
				Fig. No:		Page 1 of 1				

SUBSURFACE EXPLORATION & TESTING REPORT.	SHAKWAK SEG 11	TEST HOLE NO: 626-1978
ENGINEERING CAPITAL	BURWASH CREEK RHS	Project No: 092-202101-0361
NODWELL B40L 6" AUGER	LOCATION: 1775+525 175M LT.	ELEVATION: 0.00 (m)

SAMPLE TYPE RETURN S.P.T. AUGER BULK TUBE CORE



Government of Yukon
Transportation Engineering

LOGGED BY: G.C.
REVIEWED BY:
Fig. No:

COMPLETION DEPTH: 4.5 m
COMPLETE: 01/09/27

Pit 115 G-06A
Km 1776 LHS Alaska Highway
(Burwash Creek)

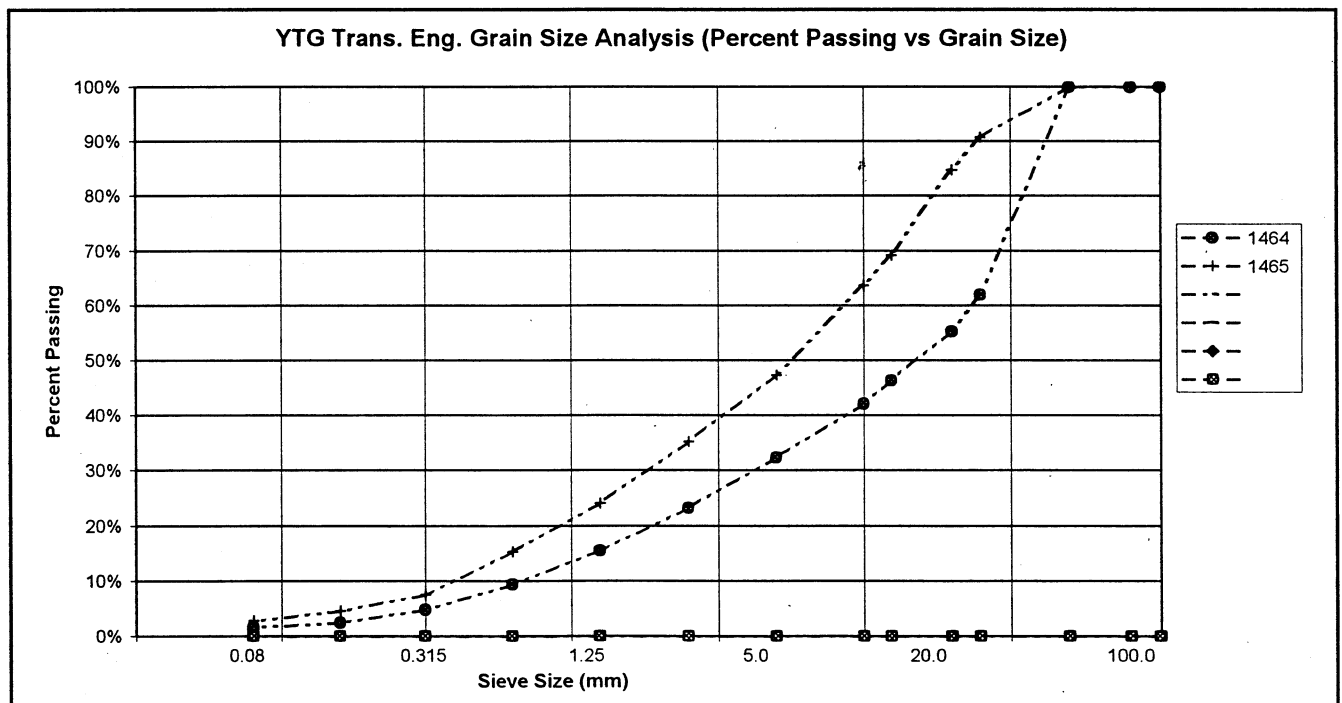
2001
Auger Sample Results

PROJECT NUMBER: 092-202101-0361-1
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SHAKWAK SEG 11
 PROJECT LOCATION: Km 1729.6-1787 A/H
 DRILL UNIT: MOBILE B40 L
 HOLE LOCATION: 1775+900 300M RT
 LOGGED BY: G C

HOLE No.: 626-1966

DATE COMP: 2001/09/26

FIELD NO:	1464	1465			
LAB NO:	2244	2245			
DEPTH:	1.0-2.0	3.5-4.5			
TYPE:	AUGER	AUGER	AUGER	AUGER	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%			
80.0	100%	100%			
50.0	100%	100%			
25.0	62%	91%			
20.0	55%	85%			
12.5	46%	69%			
10.0	42%	64%			
5.0	32%	47%			
2.5	23%	35%			
1.25	15%	24%			
0.630	9%	15%			
0.315	5%	8%			
0.160	3%	5%			
0.080	2%	3%			
M.C.(%):	2%	3%			
LIQUID LIMIT:	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0			
% GRAVEL:	68	53			
% SAND:	31	44			
% FINES:	2	3			
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)			

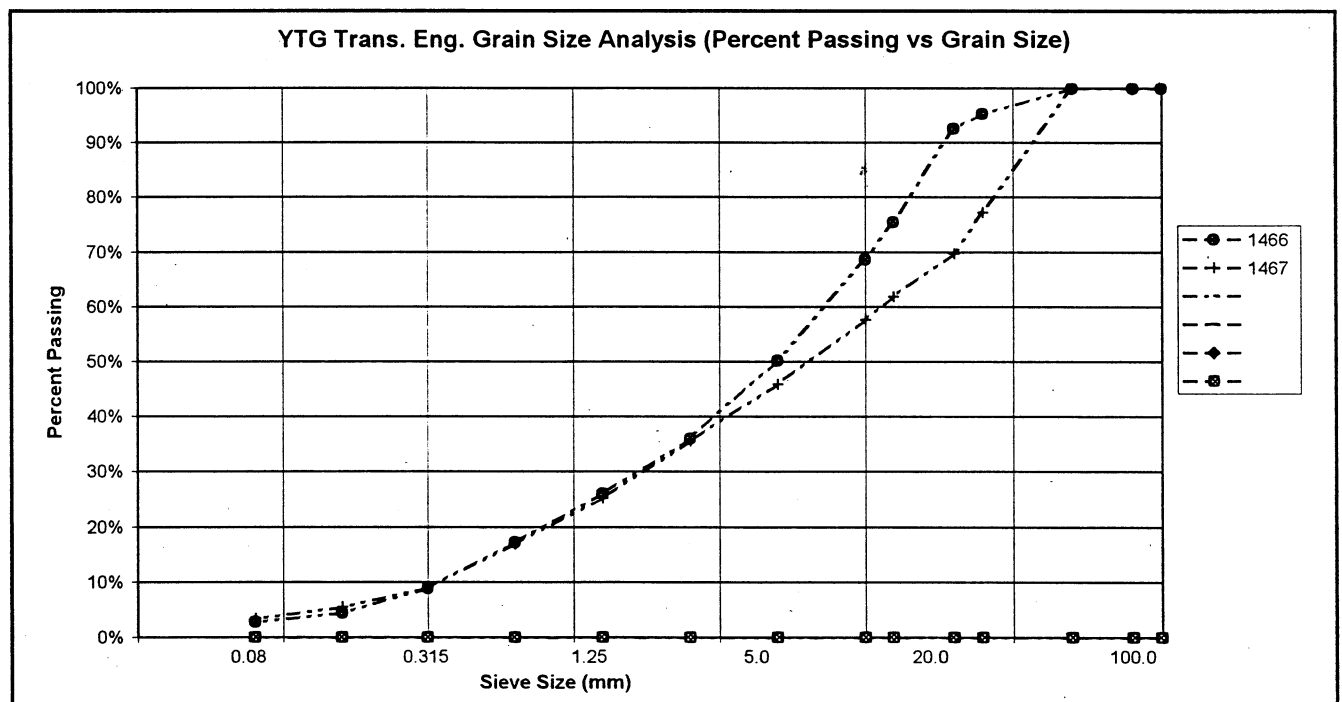


PROJECT NUMBER: 092-202101-0361-1
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SHAKWAK SEG 11
 PROJECT LOCATION: Km 1729.6-1787 A/H
 DRILL UNIT: MOBILE B40 L
 HOLE LOCATION: 1775+900 400M RT
 LOGGED BY: G C

HOLE No.: 626-1967

DATE COMP: 2001/09/26

FIELD NO:	1466	1467			
LAB NO:	2246	2247			
DEPTH:	1.0-2.0	3.5-4.5			
TYPE:	AUGER	AUGER	AUGER	AUGER	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%			
80.0	100%	100%			
50.0	100%	100%			
25.0	95%	77%			
20.0	93%	70%			
12.5	76%	62%			
10.0	69%	58%			
5.0	50%	46%			
2.5	36%	36%			
1.25	26%	25%			
0.630	17%	17%			
0.315	9%	9%			
0.160	5%	6%			
0.080	3%	3%			
M.C.(%):	2%	3%			
LIQUID LIMIT:	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0			
% GRAVEL:	50	54			
% SAND:	47	43			
% FINES:	3	3			
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)			

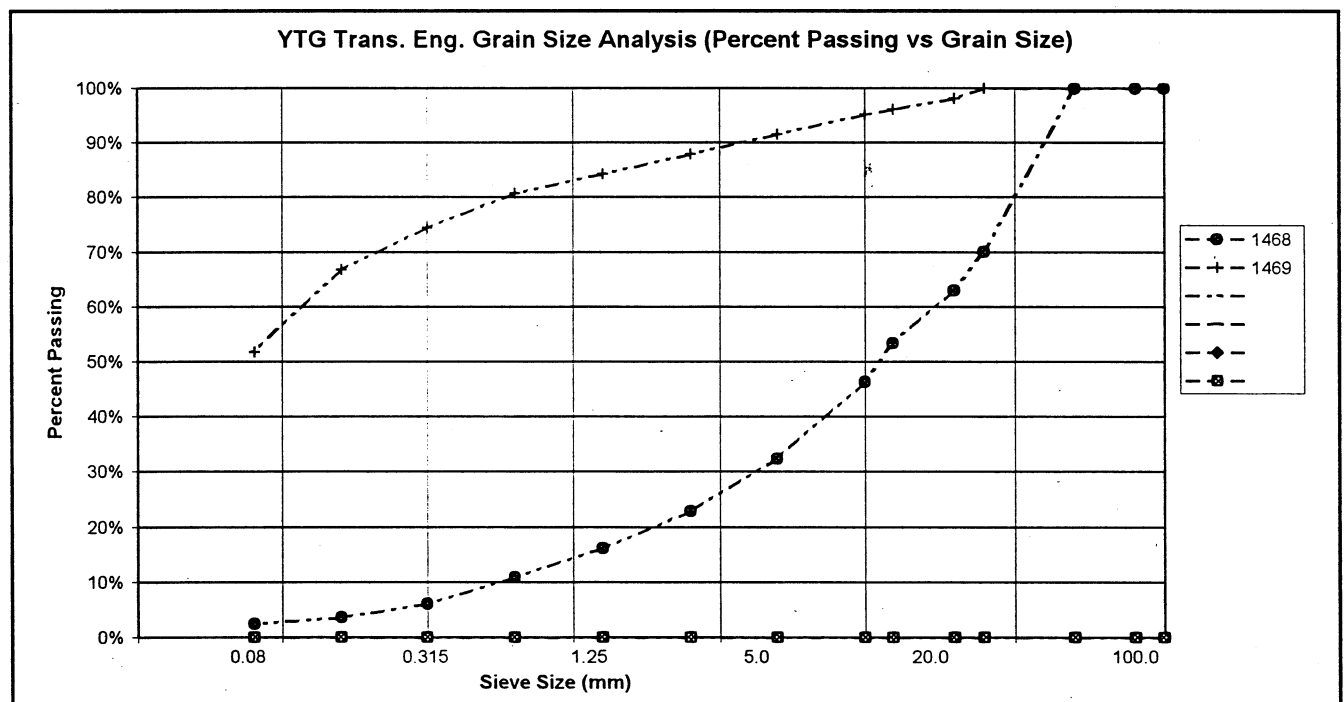


PROJECT NUMBER: 092-202101-0361-1
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SHAKWAK SEG 11
 PROJECT LOCATION: Km 1729.6-1787 A/H
 DRILL UNIT: MOBILE B40 L
 HOLE LOCATION: 1775+850 200M RT
 LOGGED BY: G C

HOLE No.: 626-1968

DATE COMP: 2001/09/26

FIELD NO:	1468	1469			
LAB NO:	2248	2249			
DEPTH:	1.0-2.0	3.5-4.5			
TYPE:	AUGER	AUGER	AUGER	AUGER	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%			
80.0	100%	100%			
50.0	100%	100%			
25.0	70%	100%			
20.0	63%	98%			
12.5	53%	96%			
10.0	46%	95%			
5.0	32%	92%			
2.5	23%	88%			
1.25	16%	84%			
0.630	11%	81%			
0.315	6%	74%			
0.160	4%	67%			
0.080	2%	52%			
M.C.(%)	2%	23%			
LIQUID LIMIT:	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0			
PLASTIC INDEX:	0.0	0.0			
% GRAVEL:	68	8			
% SAND:	30	40			
% FINES:	2	52			
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	SANDY SILT (ML)			

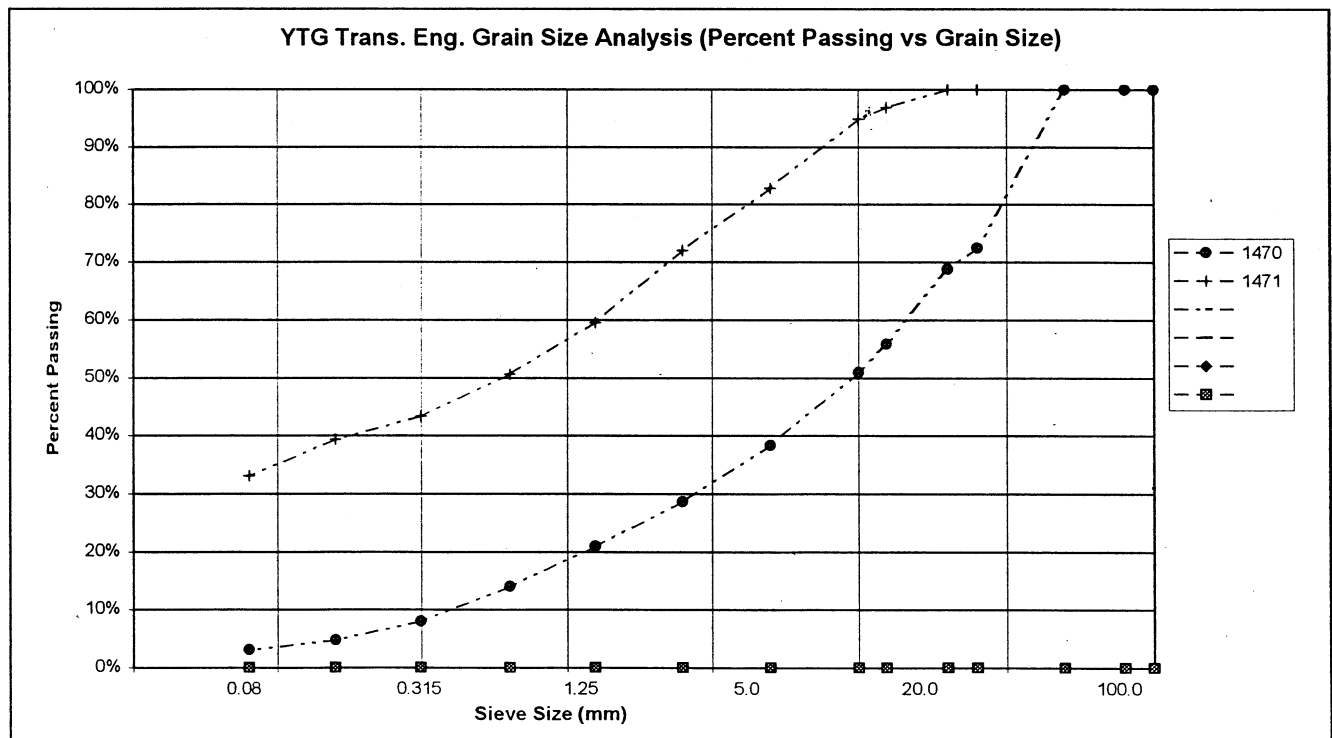


PROJECT NUMBER: 092-202101-0361-1
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SHAKWAK SEG 11
 PROJECT LOCATION: Km 1729.6-1787 A/H
 DRILL UNIT: MOBILE B40 L
 HOLE LOCATION: 1775+800 400M RT
 LOGGED BY: G C

HOLE No.: 626-1969

DATE COMP: 2001/09/26

FIELD NO:	1470	1471			
LAB NO:	2250	2251			
DEPTH:	1.0-2.0	3.5-4.5			
TYPE:	AUGER	AUGER	AUGER	AUGER	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%			
80.0	100%	100%			
50.0	100%	100%			
25.0	72%	100%			
20.0	69%	100%			
12.5	56%	97%			
10.0	51%	95%			
5.0	38%	83%			
2.5	29%	72%			
1.25	21%	60%			
0.630	14%	51%			
0.315	8%	43%			
0.160	5%	39%			
0.080	3%	33%			
M.C.(%)	2%	20%			
LIQUID LIMIT:	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0			
% GRAVEL:	62	17			
% SAND:	35	50			
% FINES:	3	33			
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	SILTY SAND WITH GRAVEL (SM)			

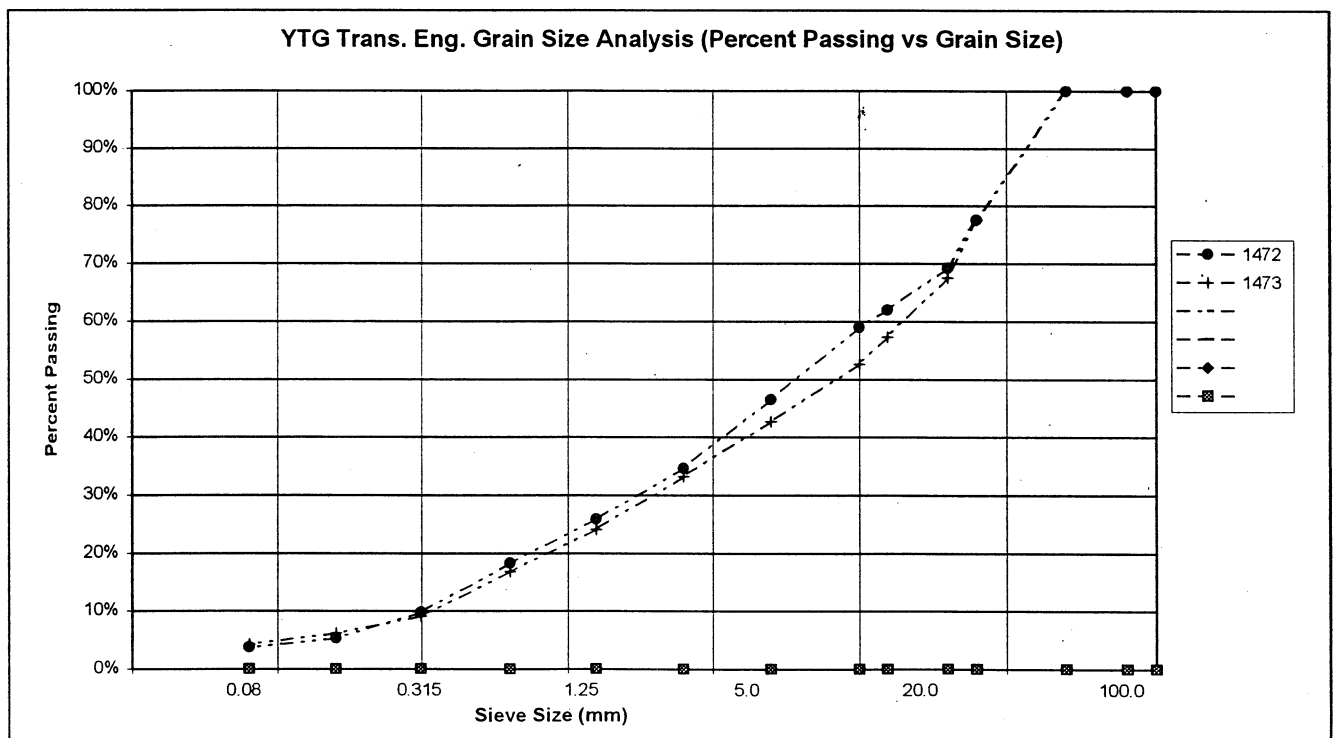


PROJECT NUMBER: 092-202101-0361-1
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SHAKWAK SEG 11
 PROJECT LOCATION: Km 1729.6-1787 A/H
 DRILL UNIT: MOBILE B40 L
 HOLE LOCATION: 1775+800 300M RT
 LOGGED BY: G C

HOLE No.: 626-1970

DATE COMP: 2001/09/26

FIELD NO:	1472	1473			
LAB NO:	2252	2253			
DEPTH:	1.0-2.0	3.5-4.5			
TYPE:	AUGER	AUGER	AUGER	AUGER	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%			
80.0	100%	100%			
50.0	100%	100%			
25.0	78%	78%			
20.0	69%	68%			
12.5	62%	57%			
10.0	59%	53%			
5.0	47%	43%			
2.5	35%	33%			
1.25	26%	24%			
0.630	18%	17%			
0.315	10%	9%			
0.160	5%	6%			
0.080	4%	4%			
M.C.(%)	4%	3%			
LIQUID LIMIT:	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0			
PLASTIC INDEX:	0.0	0.0			
% GRAVEL:	53	57			
% SAND:	43	38			
% FINES:	4	4			
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)			

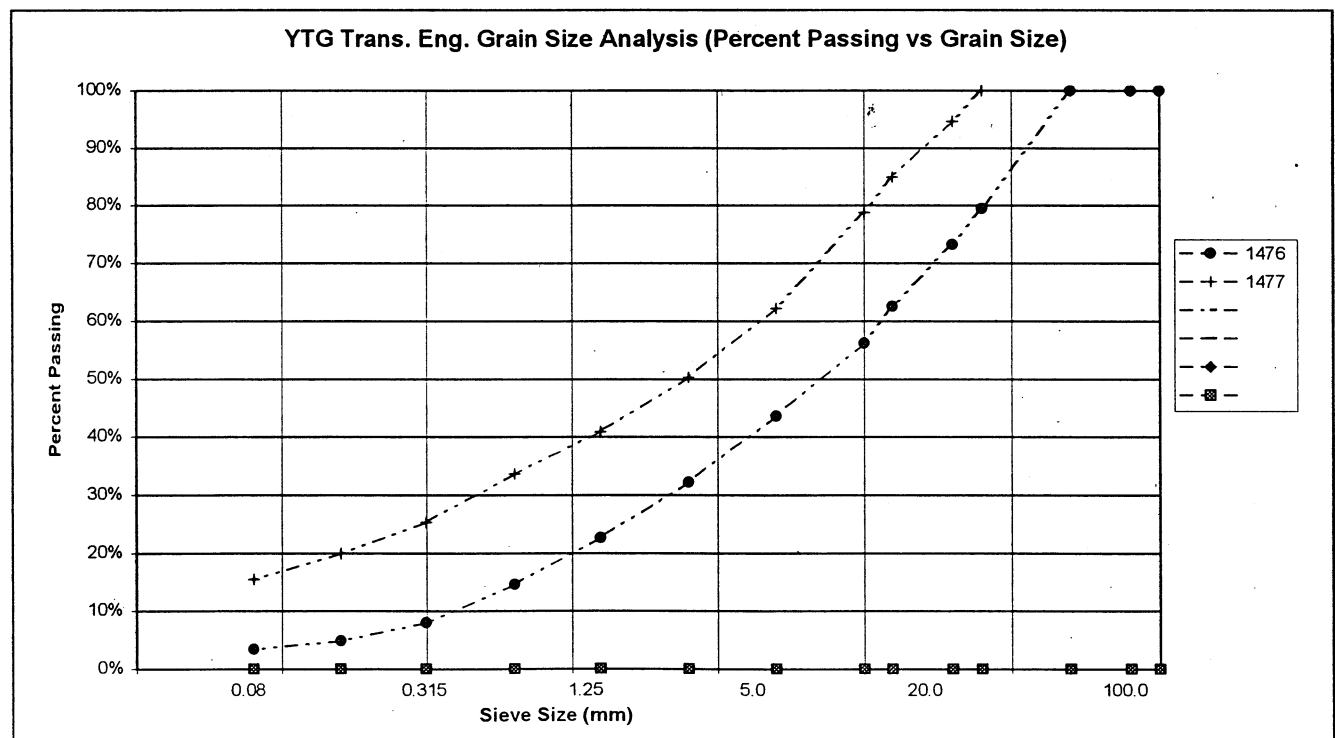


PROJECT NUMBER: 092-202101-0361-1
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SHAKWAK SEG 11
 PROJECT LOCATION: Km 1729.6-1787 A/H
 DRILL UNIT: MOBILE B40 L
 HOLE LOCATION: 1775+800 100M RT
 LOGGED BY: G C

HOLE No.: 626-1972

DATE COMP: 2001/09/26

FIELD NO:	1476	1477			
LAB NO:	2256	2257			
DEPTH:	1.0-2.0	3.5-4.5			
TYPE:	AUGER	AUGER	AUGER	AUGER	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%			
80.0	100%	100%			
50.0	100%	100%			
25.0	80%	100%			
20.0	73%	95%			
12.5	63%	85%			
10.0	56%	79%			
5.0	44%	62%			
2.5	32%	50%			
1.25	23%	41%			
0.630	15%	34%			
0.315	8%	25%			
0.160	5%	20%			
0.080	3%	16%			
M.C.(%)	3%	16%			
LIQUID LIMIT:	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0			
% GRAVEL:	56	38			
% SAND:	40	47			
% FINES:	3	16			
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	SILTY SAND WITH GRAVEL (SM)			

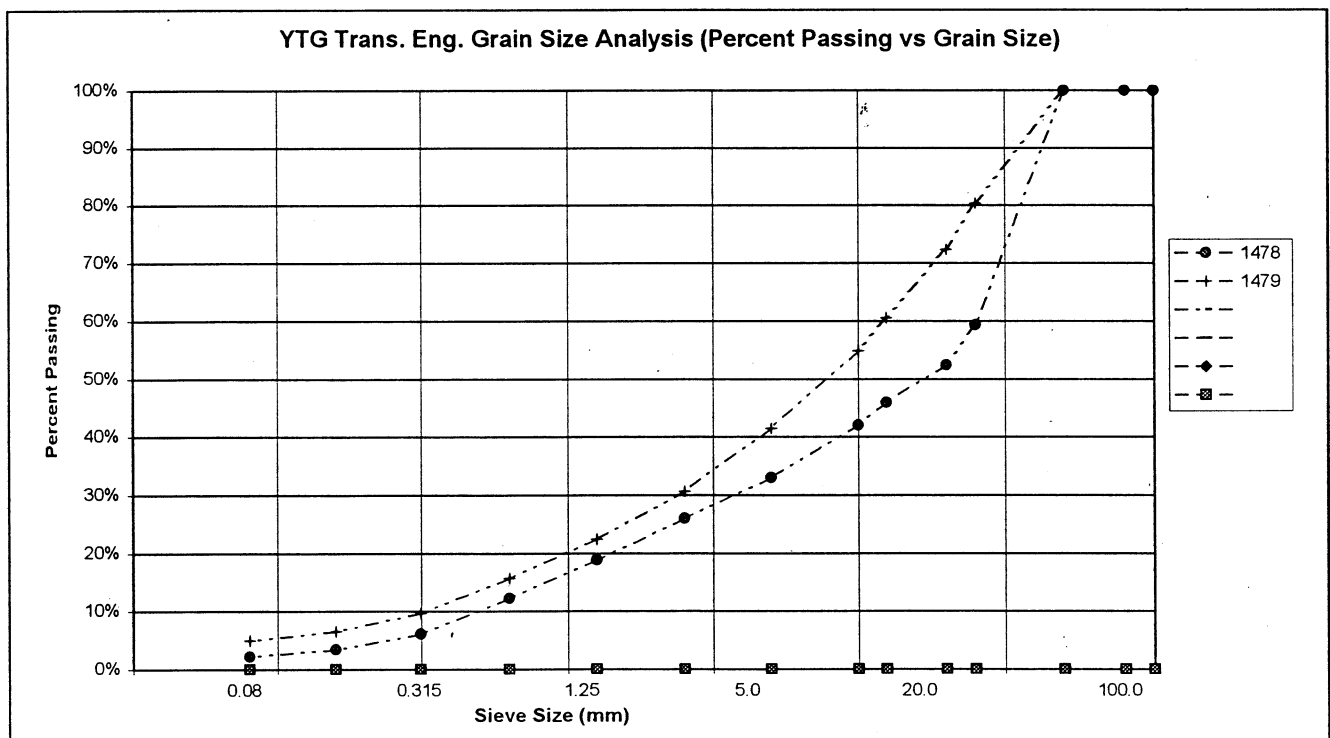


PROJECT NUMBER: 092-202101-0361-1
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SHAKWAK SEG 11
 PROJECT LOCATION: Km 1729.6-1787 A/H
 DRILL UNIT: MOBILE B40 L
 HOLE LOCATION: 1775+625 75M LT
 LOGGED BY: G C

HOLE No.: 626-1973

DATE COMP: 2001/09/26

FIELD NO:	1478	1479				
LAB NO:	2258	2259				
DEPTH:	1.0-2.0	3.5-4.5				
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING				
100.0	100%	100%				
80.0	100%	100%				
50.0	100%	100%				
25.0	59%	80%				
20.0	52%	72%				
12.5	46%	61%				
10.0	42%	55%				
5.0	33%	41%				
2.5	26%	31%				
1.25	19%	22%				
0.630	12%	16%				
0.315	6%	10%				
0.160	3%	7%				
0.080	2%	5%				
M.C.(%):	3%	6%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	67	59				
% SAND:	31	36				
% FINES:	2	5				
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)				

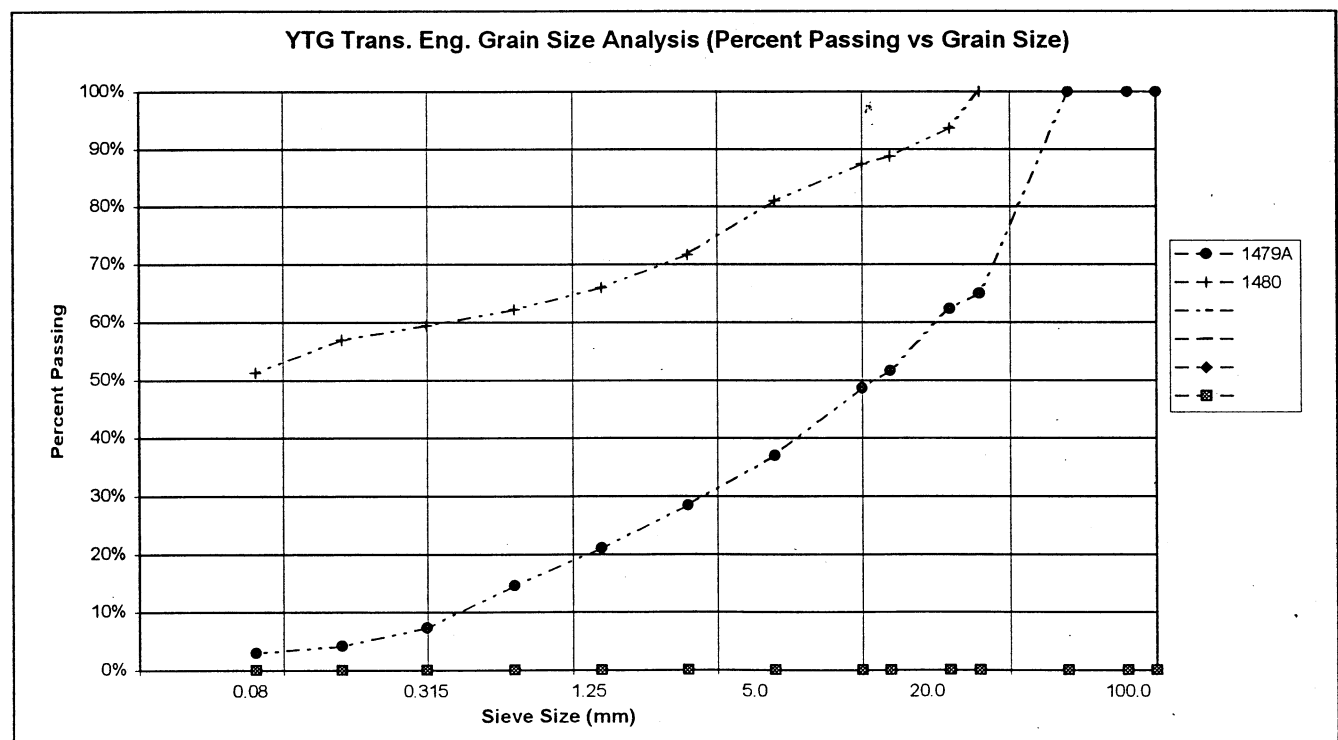


PROJECT NUMBER: 092-202101-0361-1
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SHAKWAK SEG 11
 PROJECT LOCATION: Km 1729.6-1787 A/H
 DRILL UNIT: MOBILE B40 L
 HOLE LOCATION: 1775+625 175M LT
 LOGGED BY: G C

HOLE No.: 626-1974

DATE COMP: 2001/09/26

FIELD NO:	1479A	1480			
LAB NO:	2260	2261			
DEPTH:	1.0-2.0	3.5-4.5			
TYPE:	AUGER	AUGER	AUGER	AUGER	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%			
80.0	100%	100%			
50.0	100%	100%			
25.0	65%	100%			
20.0	62%	94%			
12.5	52%	89%			
10.0	49%	87%			
5.0	37%	81%			
2.5	28%	72%			
1.25	21%	66%			
0.630	15%	62%			
0.315	7%	59%			
0.160	4%	57%			
0.080	3%	51%			
M.C.(%):	#VALUE!	21%			
LIQUID LIMIT:	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0			
% GRAVEL:	63	19			
% SAND:	34	30			
% FINES:	3	51			
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	SANDY SILT WITH GRAVEL (ML)			

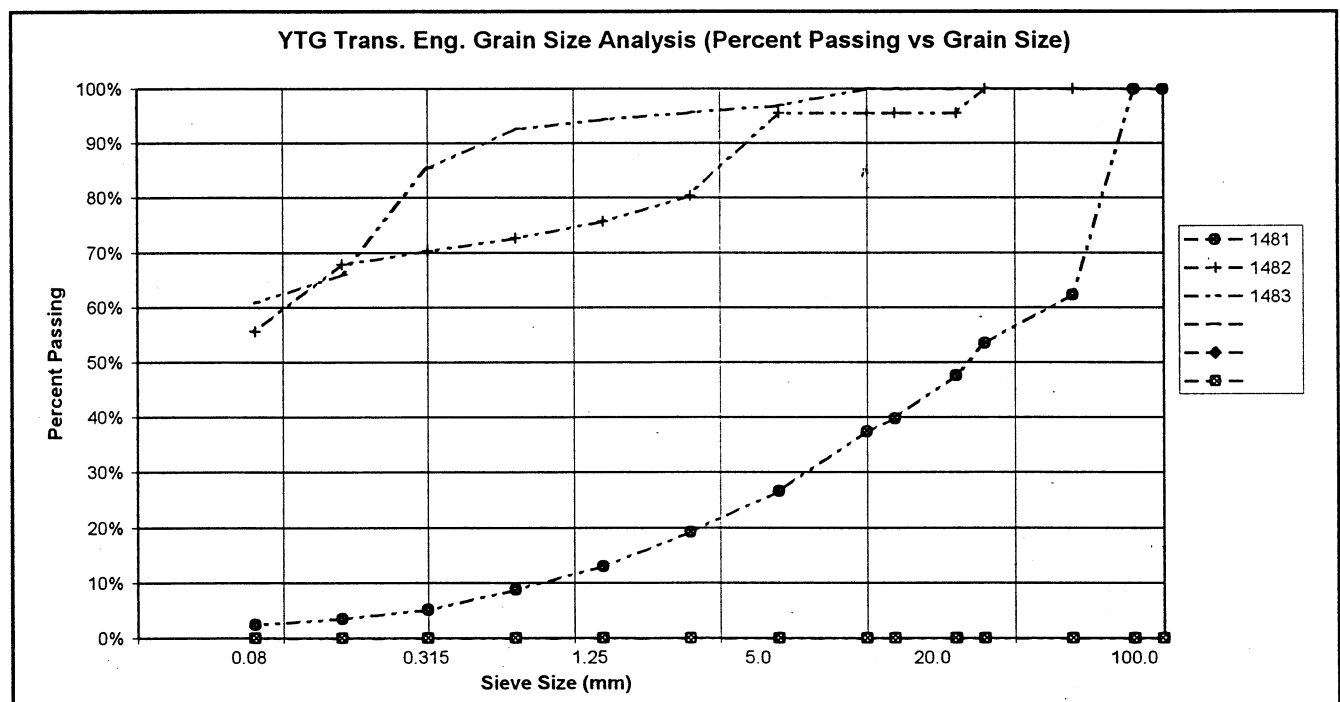


PROJECT NUMBER: 092-202101-0361-1
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SHAKWAK SEG 11
 PROJECT LOCATION: Km 1729.6-1787 A/H
 DRILL UNIT: MOBILE B40 L
 HOLE LOCATION: 1775+625 275 LT
 LOGGED BY: G C

HOLE No.: 626-1975

DATE COMP: 2001/09/26

FIELD NO:	1481	1482	1483		
LAB NO:	2262	2263	2264		
DEPTH:	1.0-1.5	1.8-2.0	3.5-4.5		
TYPE:	AUGER	AUGER	AUGER	AUGER	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%		
80.0	100%	100%	100%		
50.0	62%	100%	100%		
25.0	53%	100%	100%		
20.0	48%	96%	100%		
12.5	40%	96%	100%		
10.0	37%	96%	100%		
5.0	27%	96%	97%		
2.5	19%	80%	96%		
1.25	13%	76%	94%		
0.630	9%	73%	93%		
0.315	5%	70%	85%		
0.160	3%	68%	66%		
0.080	2%	56%	61%		
M.C.(%)	3%	28%	29%		
LIQUID LIMIT:	0.0	0.0	0.0		
PLASTIC LIMIT:	0.0	0.0	0.0		
PLASTIC INDEX:	0.0	0.0	0.0		
% GRAVEL:	73	4	3		
% SAND:	24	40	36		
% FINES:	2	56	61		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	SANDY SILT (ML)	SANDY SILT (ML)		

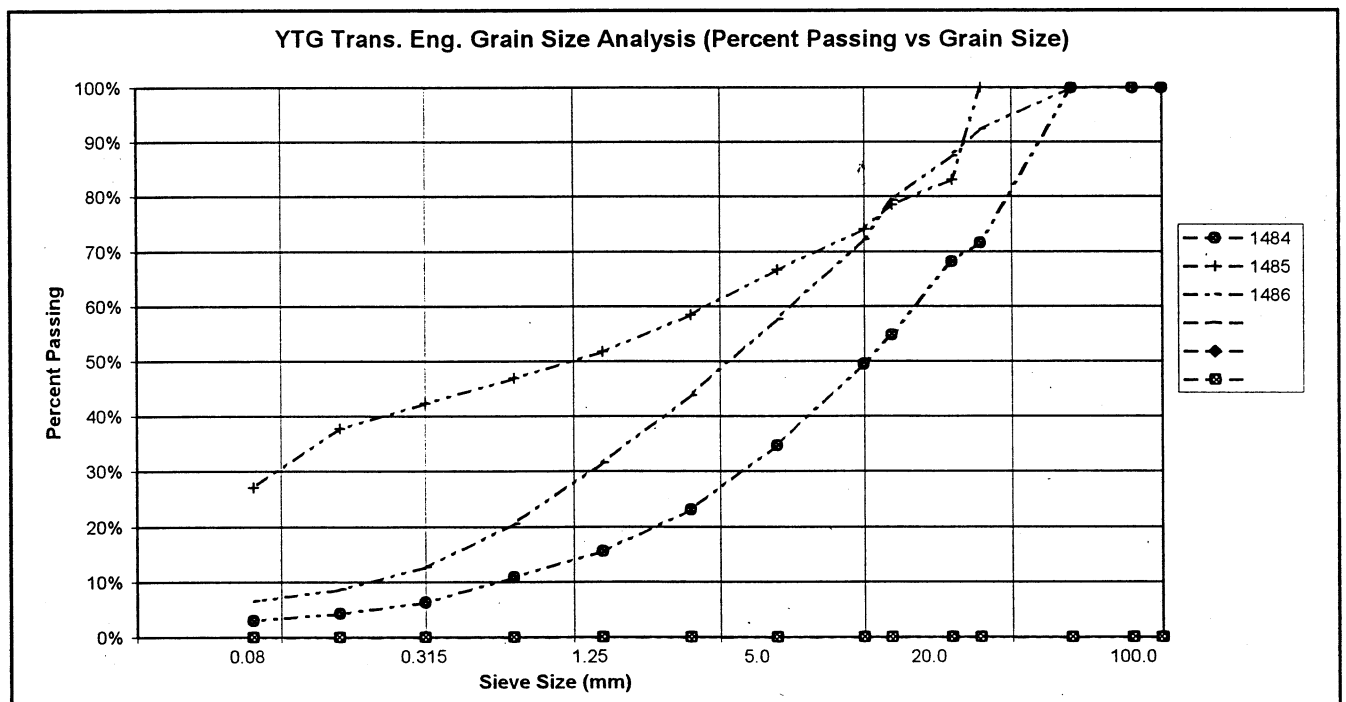


PROJECT NUMBER: 092-202101-0361-1
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SHAKWAK SEG 11
 PROJECT LOCATION: Km 1729.6-1787 A/H
 DRILL UNIT: MOBILE B40 L
 HOLE LOCATION: 1775+625 375 M LT
 LOGGED BY: G C

HOLE No.: 626-1976

DATE COMP: 2001/09/26

FIELD NO:	1484	1485	1486		
LAB NO:	2265	2266	2267		
DEPTH:	1.0-1.5	1.8-2.0	3.5-4.5		
TYPE:	AUGER	AUGER	AUGER	AUGER	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%		
80.0	100%	100%	100%		
50.0	100%	100%	100%		
25.0	72%	100%	92%		
20.0	68%	83%	87%		
12.5	55%	79%	79%		
10.0	50%	74%	72%		
5.0	35%	67%	58%		
2.5	23%	58%	44%		
1.25	16%	52%	32%		
0.630	11%	47%	21%		
0.315	6%	42%	13%		
0.160	4%	38%	9%		
0.080	3%	27%	7%		
M.C.(%):	2%	17%	4%		
LIQUID LIMIT:	0.0	0.0	0.0		
PLASTIC LIMIT:	0.0	0.0	0.0		
PLASTIC INDEX.:	0.0	0.0	0.0		
% GRAVEL:	65	33	42		
% SAND:	32	40	51		
% FINES:	3	27	7		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	SILTY SAND WITH GRAVEL (SM)	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)		

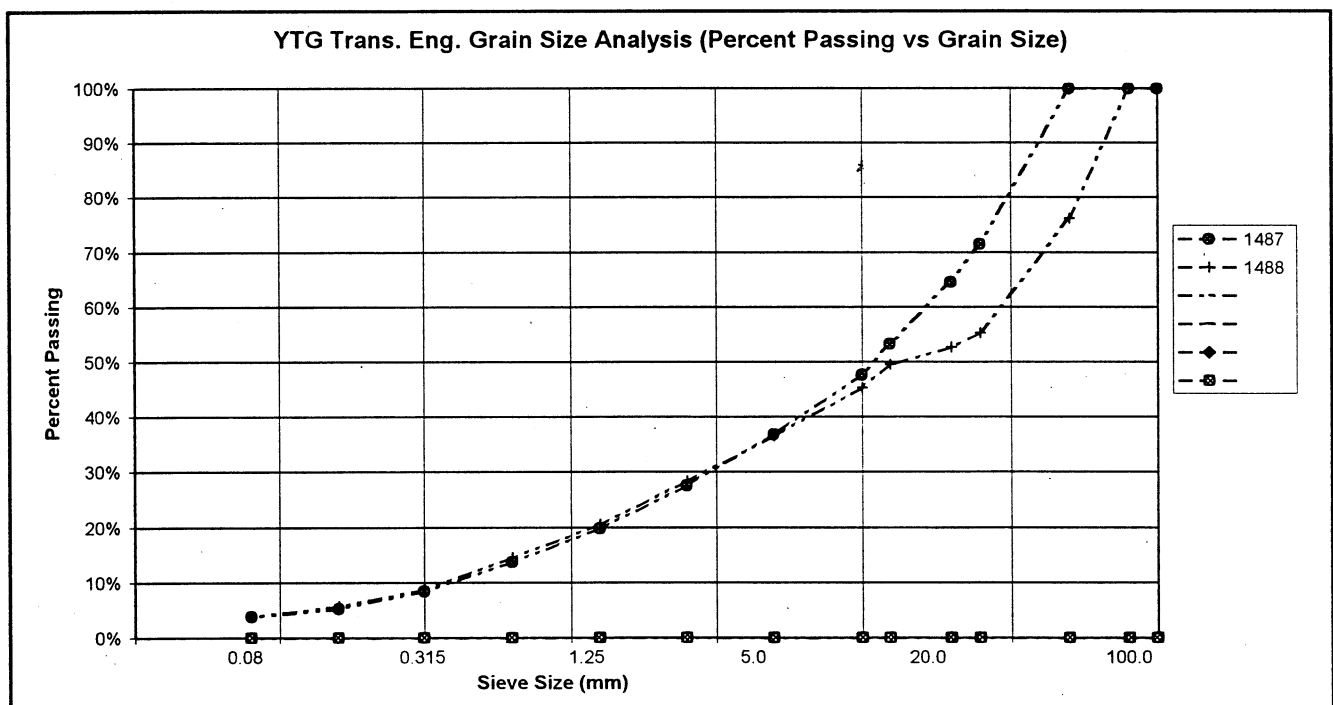


PROJECT NUMBER: 092-202101-0361-1
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SHAKWAK SEG 11
 PROJECT LOCATION: Km 1729.6-1787 A/H
 DRILL UNIT: MOBILE B40 L
 HOLE LOCATION: 1775+625 500M LT
 LOGGED BY: G C

HOLE No.: 626-1977

DATE COMP: 2001/09/26

FIELD NO:	1487	1488			
LAB NO:	2268	2269			
DEPTH:	1.0-2.0	3.5-4.5			
TYPE:	AUGER	AUGER	AUGER	AUGER	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%			
80.0	100%	100%			
50.0	100%	76%			
25.0	72%	55%			
20.0	65%	53%			
12.5	53%	49%			
10.0	48%	45%			
5.0	37%	36%			
2.5	28%	28%			
1.25	20%	21%			
0.630	14%	15%			
0.315	8%	9%			
0.160	5%	6%			
0.080	4%	4%			
M.C.(%)	3%	3%			
LIQUID LIMIT:	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0			
PLASTIC INDEX:	0.0	0.0			
% GRAVEL:	63	64			
% SAND:	33	33			
% FINES:	4	4			
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)			

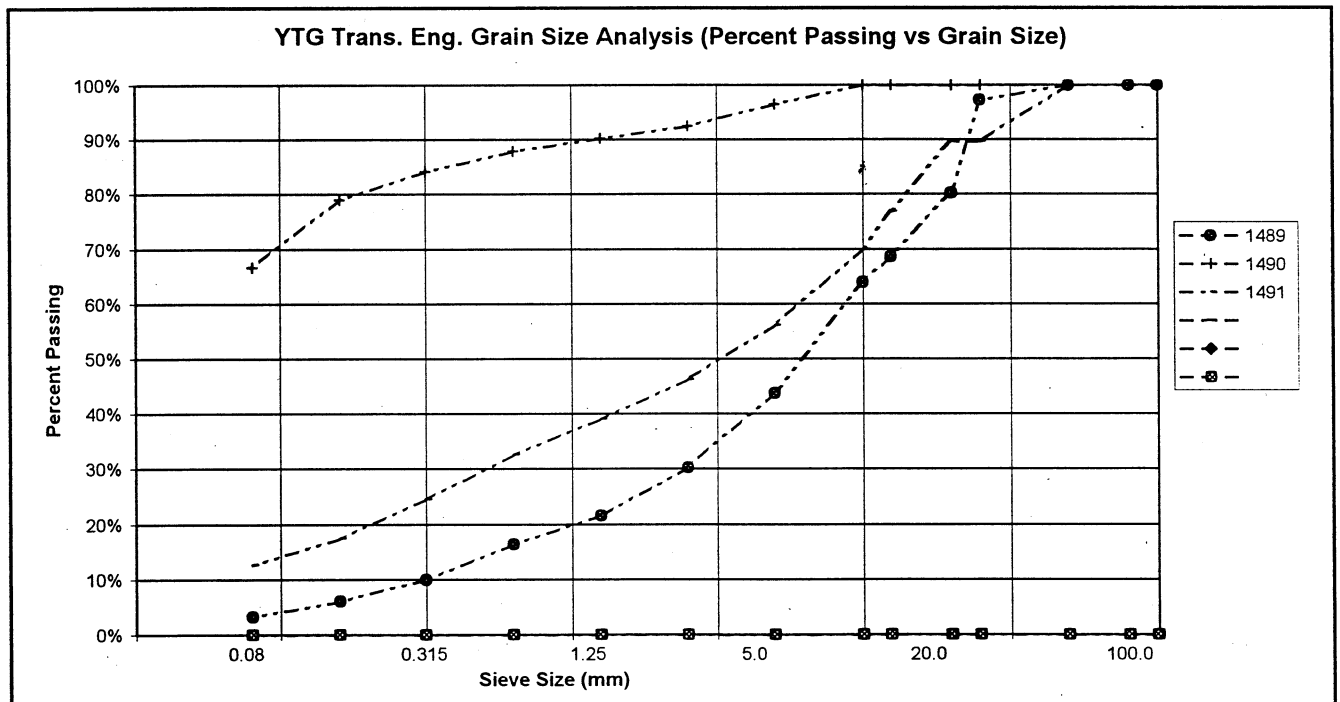


PROJECT NUMBER: 092-202101-0361-1
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SHAKWAK SEG 11
 PROJECT LOCATION: Km 1729.6-1787 AVH
 DRILL UNIT: MOBILE B40 L
 HOLE LOCATION: 1775+525 175M LT
 LOGGED BY: G C

HOLE No.: 626-1978

DATE COMP: 2001/09/27

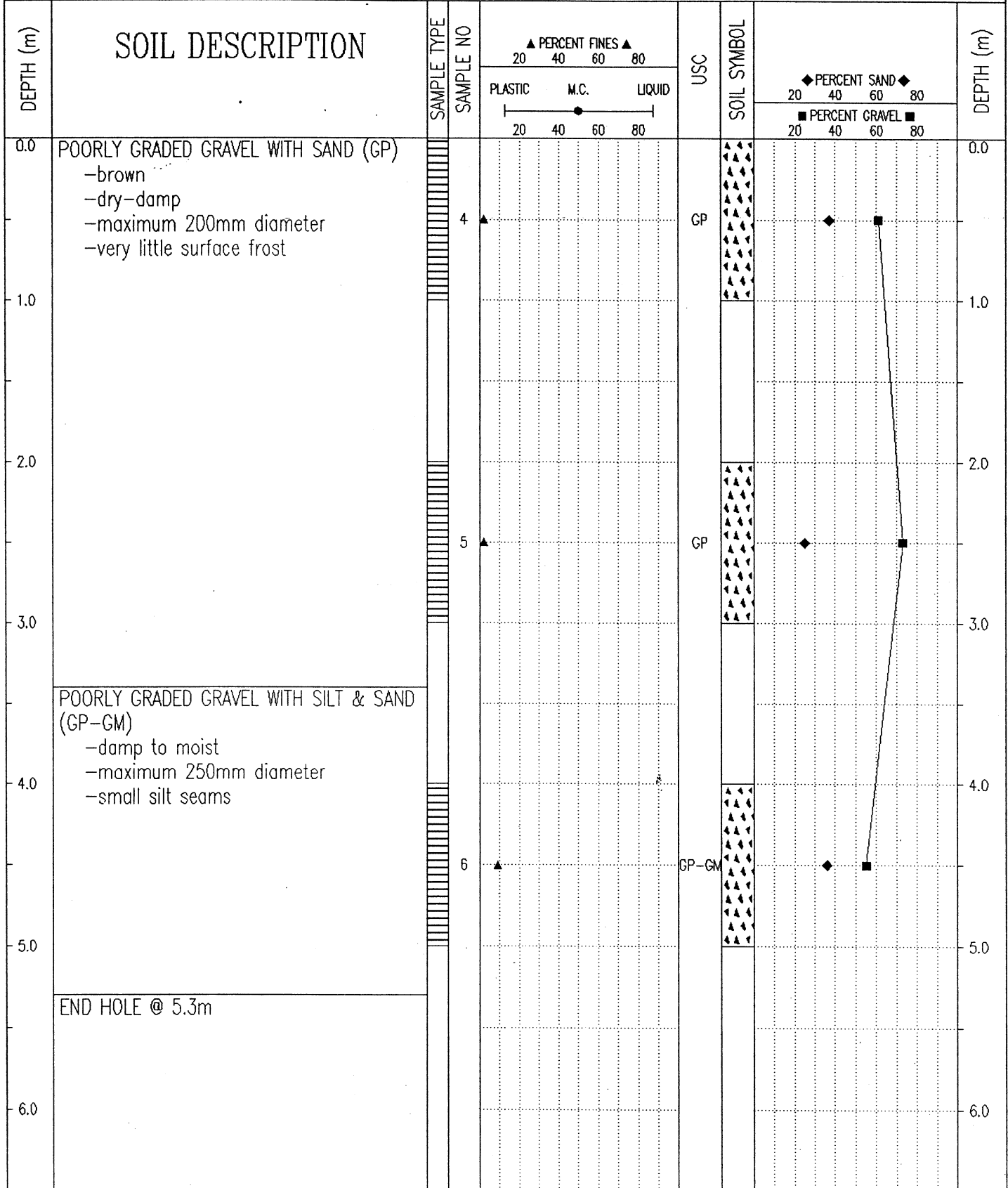
FIELD NO:	1489	1490	1491		
LAB NO:	2270	2271	2272		
DEPTH:	0.8-1.2	1.8-2.0	3.5-4.5		
TYPE:	AUGER	AUGER	AUGER	AUGER	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%		
80.0	100%	100%	100%		
50.0	100%	100%	100%		
25.0	97%	100%	90%		
20.0	80%	100%	90%		
12.5	69%	100%	77%		
10.0	64%	100%	70%		
5.0	44%	96%	56%		
2.5	30%	92%	46%		
1.25	22%	90%	39%		
0.630	16%	88%	33%		
0.315	10%	84%	24%		
0.160	6%	79%	18%		
0.080	3%	67%	13%		
M.C.(%)	2%	28%	7%		
LIQUID LIMIT:	0.0	0.0	0.0		
PLASTIC LIMIT:	0.0	0.0	0.0		
PLASTIC INDEX:	0.0	0.0	0.0		
% GRAVEL:	56	4	44		
% SAND:	40	30	43		
% FINES:	3	67	13		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	SANDY SILT (ML)	SILTY GRAVEL WITH SAND (GM)		



Km 1776.0 LHS Alaska Highway #1
Pit Ident. 115 G-06A (Burwash Creek)

2002
Test Pit Logs

SUBSURFACE EXPLORATION & TESTING REPORT		SHAKWAK SEG 12	TEST PIT NO: 641-2579
ENGINEERING CAPITAL		BURWASH CREEK PIT	Project No: 552-202101-0328
EX 400 BACKHOE		LOCATION: SEE PLAN PIT # 115-G-06A	ELEVATION: 0.00 (m)
SAMPLE TYPE	<input checked="" type="checkbox"/> RETURN	<input checked="" type="checkbox"/> S.P.T.	<input checked="" type="checkbox"/> AUGER
		<input type="checkbox"/> BULK	<input type="checkbox"/> TUBE
			<input type="checkbox"/> CORE



Government of Yukon
 Transportation Engineering

LOGGED BY: GC

REVIEWED BY:

Fig. No: 115-G-06A

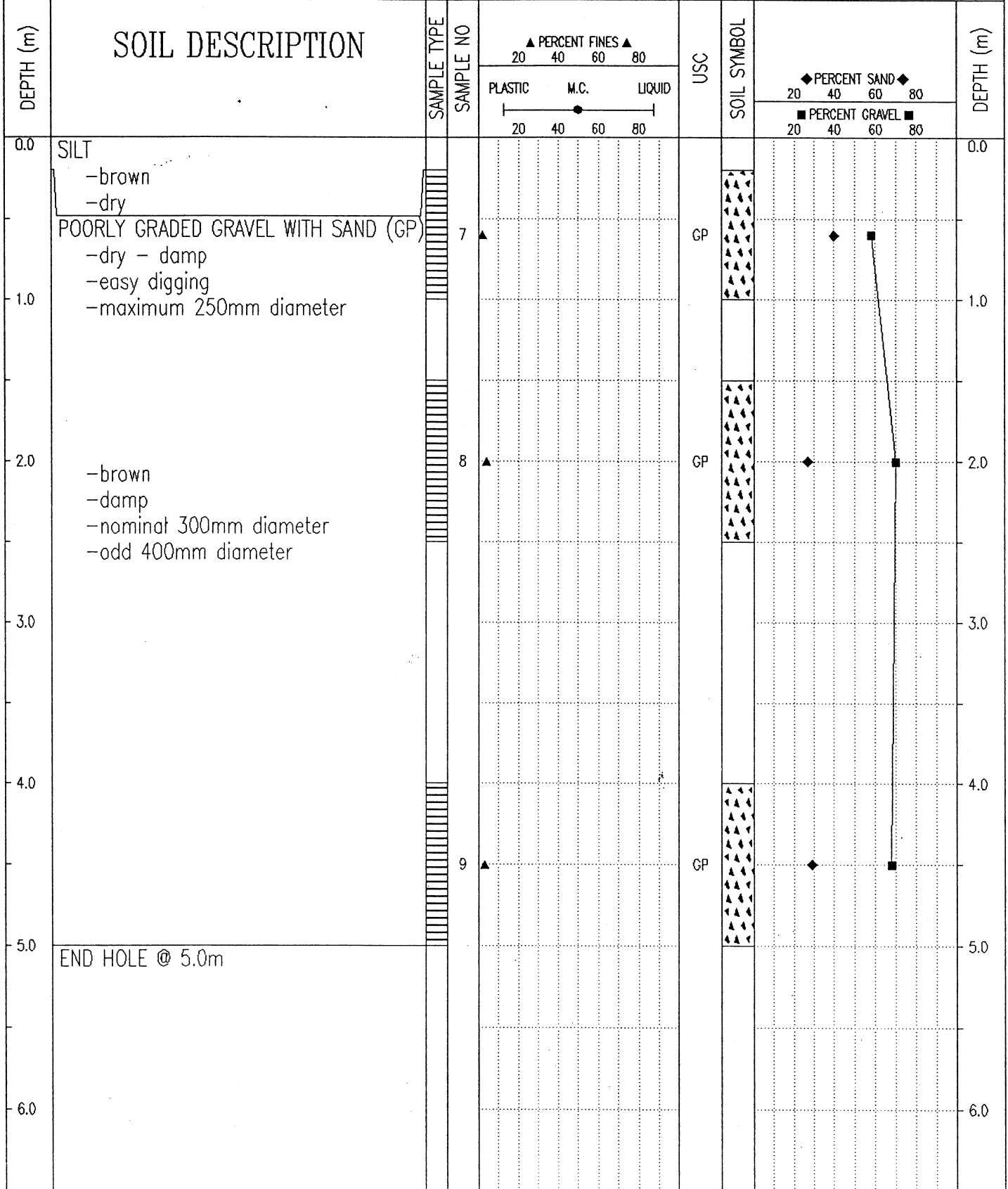
COMPLETION DEPTH: 5.3 m

COMPLETE: 06/11/02

Page 1 of 1

SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 12	TEST PIT NO: 641-2580
ENGINEERING CAPITAL	BURWASH CREEK PIT	Project No: 552-202101-0328
EX 400 BACKHOE	LOCATION: SEE PLAN PIT # 115-G-06A	ELEVATION: 0.00 (m)

SAMPLE TYPE RETURN S.P.T. AUGER BULK TUBE CORE



Government of Yukon
 Transportation Engineering

LOGGED BY: GC

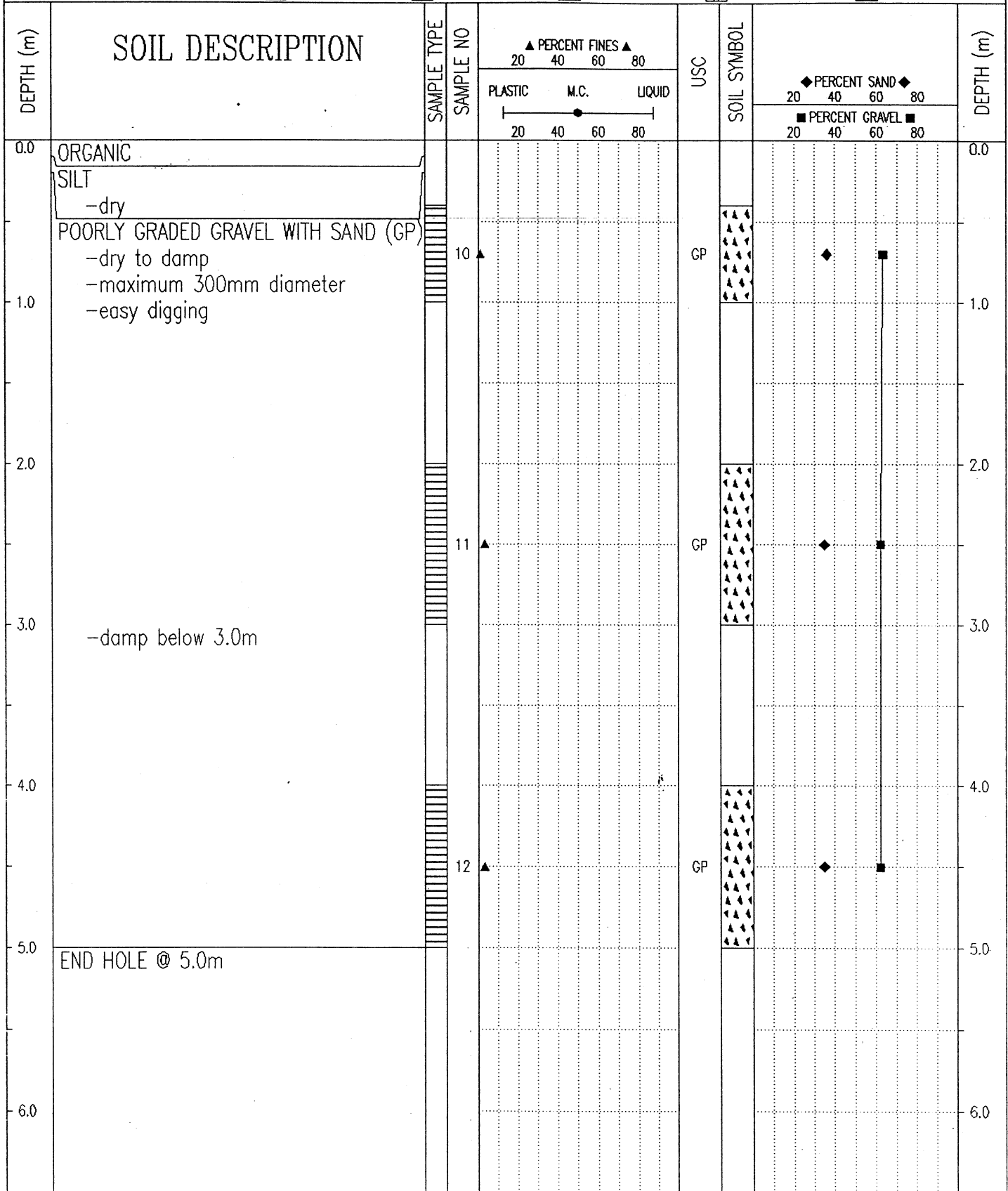
REVIEWED BY:

Fig. No: 115-G-06A

COMPLETION DEPTH: 5.0 m

COMPLETE: 06/11/02

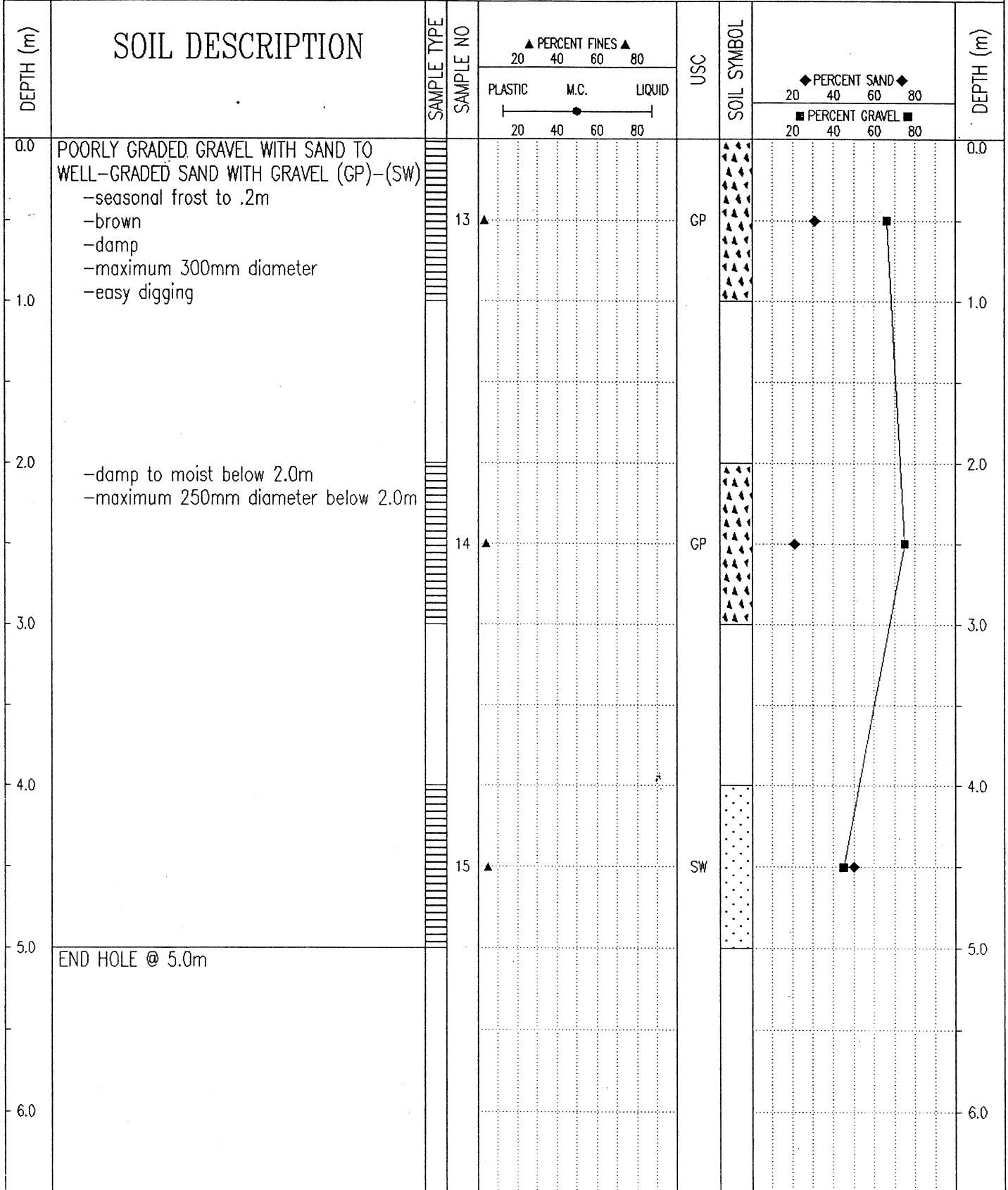
SUBSURFACE EXPLORATION & TESTING REPORT		SHAKWAK SEG 12	TEST PIT NO: 641-2581
ENGINEERING CAPITAL		BURWASH CREEK PIT	Project No: 552-202101-0328
EX 400 BACKHOE		LOCATION: SEE PLAN PIT # 115-G-06A	ELEVATION: 0.00 (m)
SAMPLE TYPE <input checked="" type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE			



Government of Yukon Transportation Engineering	LOGGED BY: GC	COMPLETION DEPTH: 5.0 m
	REVIEWED BY:	COMPLETE: 06/11/02
	Fig. No: 115-G-06A	Page 1 of 1

SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 12	TEST PIT NO: 641-2582
ENGINEERING CAPITAL	BURWASH CREEK PIT	Project No: 552-202101-0328
EX 400 BACKHOE	LOCATION: SEE PLAN PIT # 115-G-06A	ELEVATION: 0.00 (m)

SAMPLE TYPE RETURN S.P.T. AUGER BULK TUBE CORE



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Transportation Engineering

LOGGED BY: GC

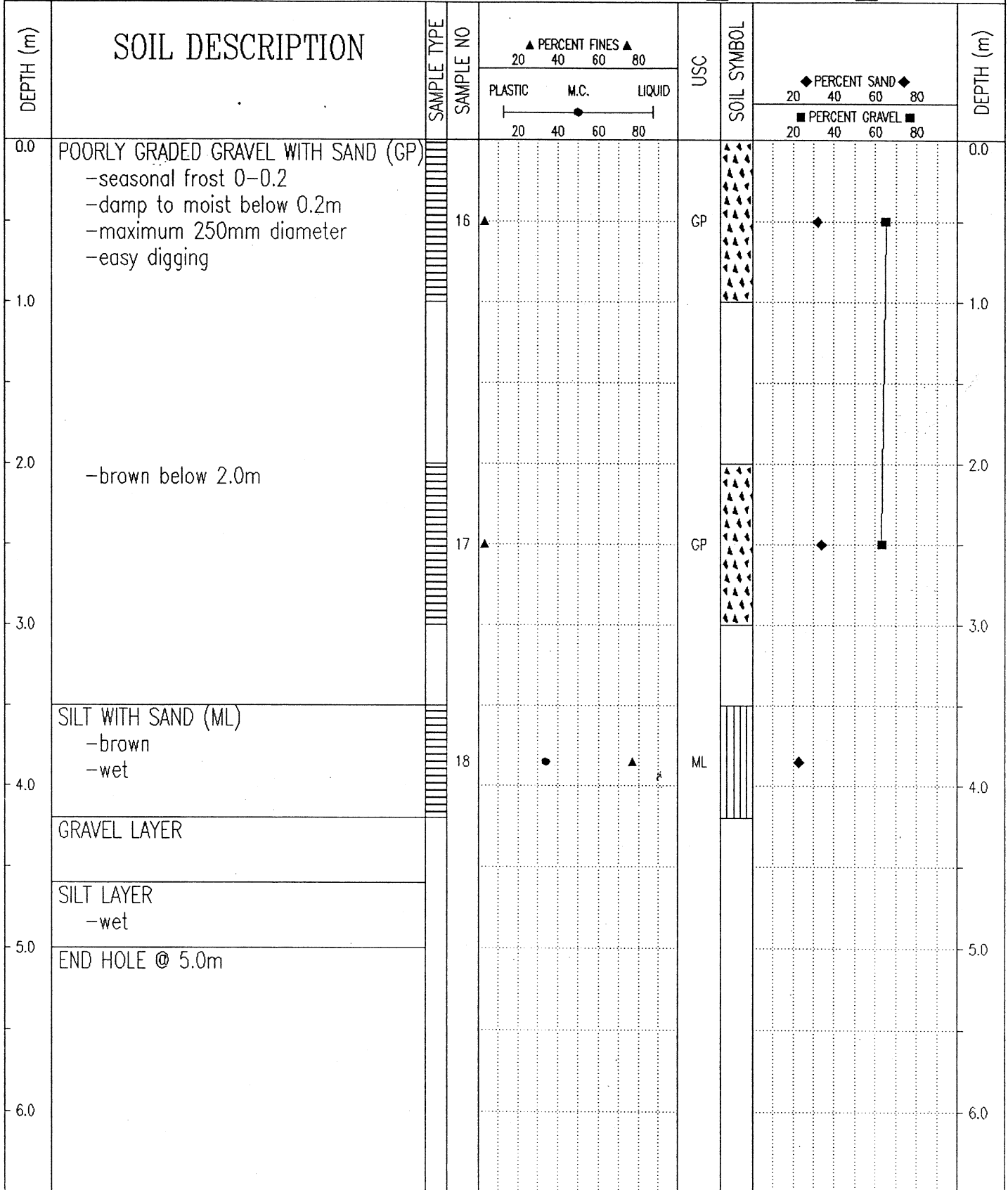
REVIEWED BY:

Fig. No: 115-G-06A

COMPLETION DEPTH: 5.0 m

COMPLETE: 06/11/02

SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 12	TEST PIT NO: 641-2583
ENGINEERING CAPITAL	BURWASH CREEK PIT	Project No: 552-202101-0328
EX 400 BACKHOE	LOCATION: SEE PLAN PIT # 115-G-06A	ELEVATION: 0.00 (m)
SAMPLE TYPE <input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE		



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 Transportation Engineering

LOGGED BY: GC

REVIEWED BY:

Fig. No: 115-G-06A

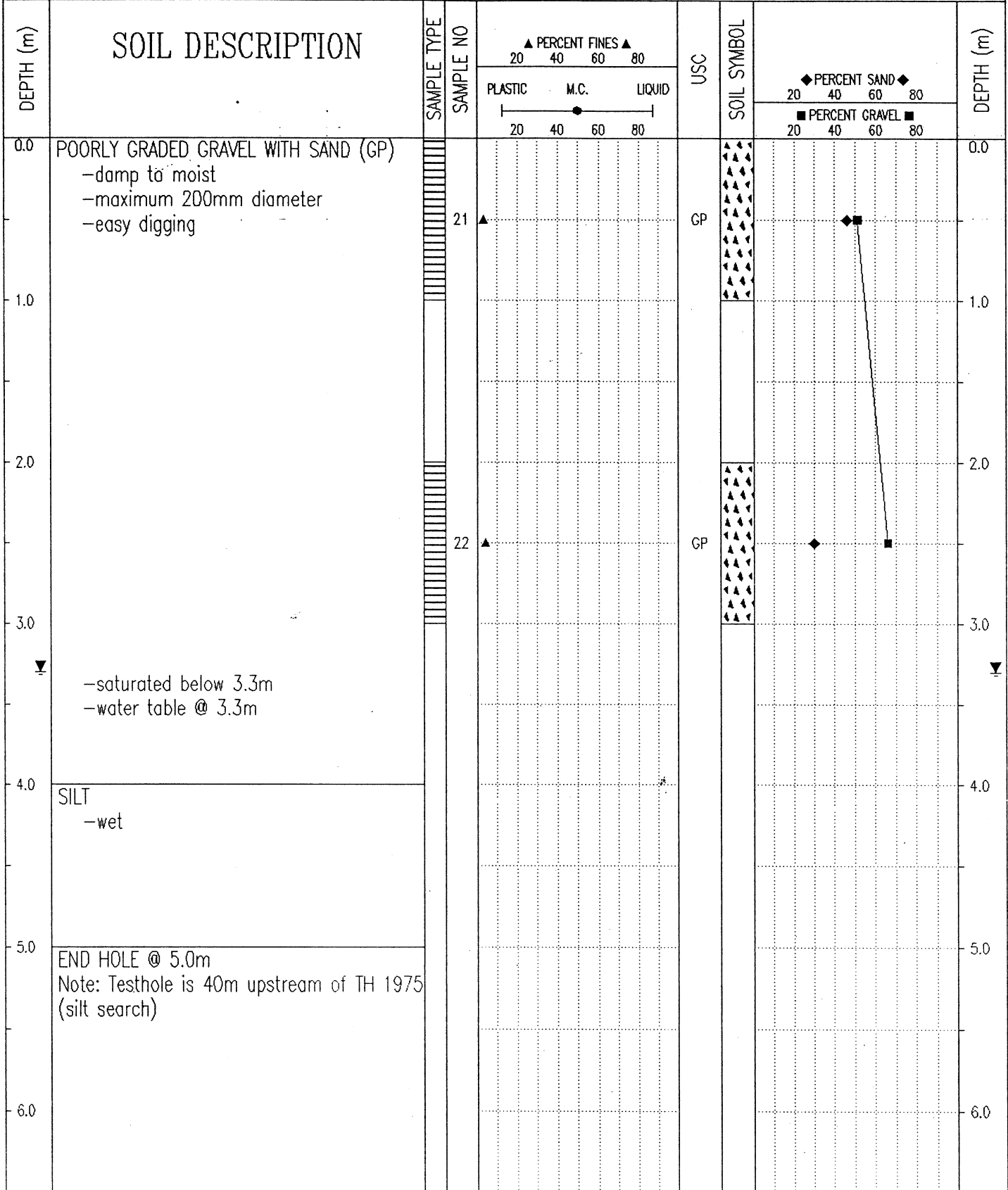
COMPLETION DEPTH: 5.0 m

COMPLETE: 06/11/02

Page 1 of 1

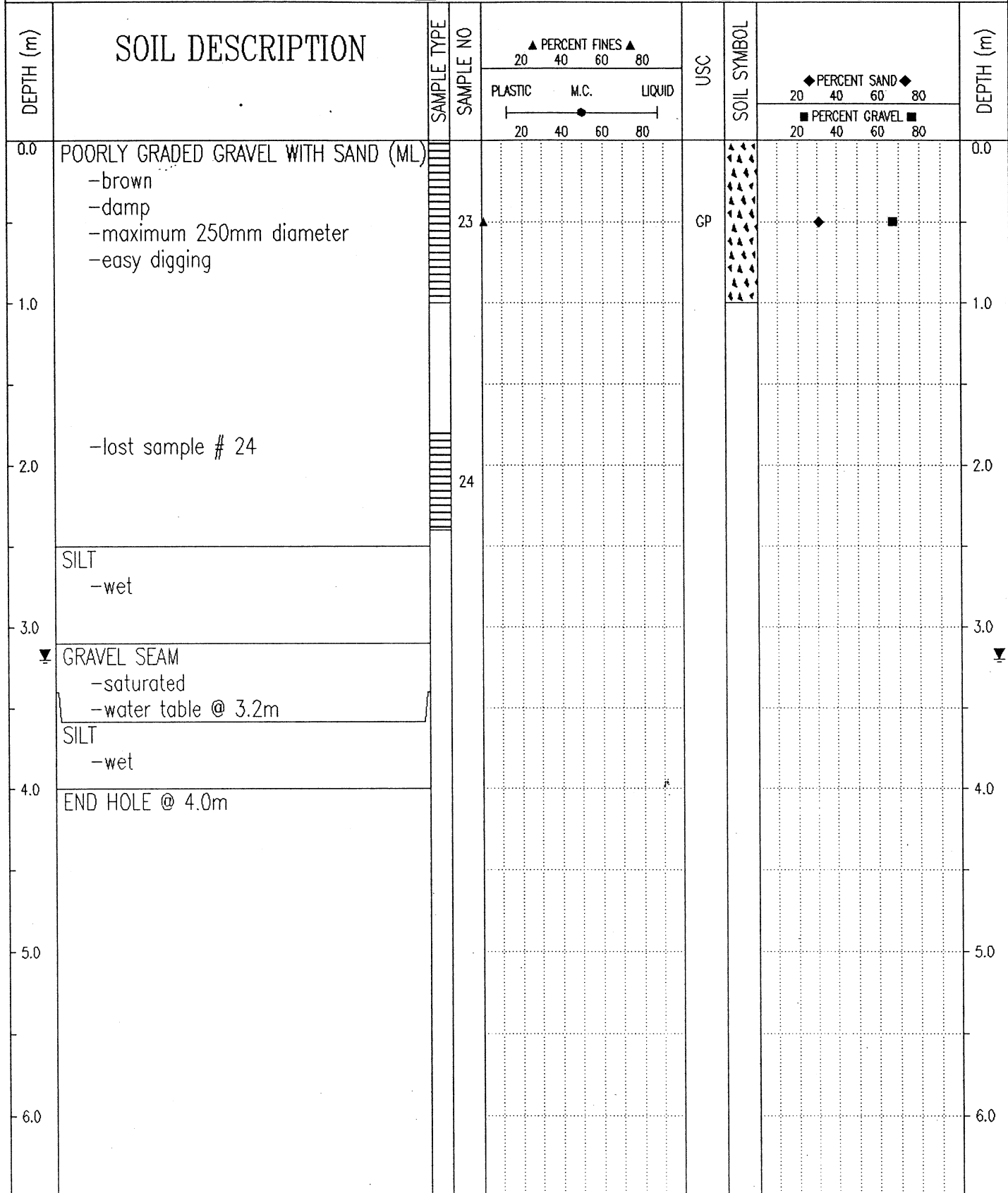
SUBSURFACE EXPLORATION & TESTING REPORT		SHAKWAK SEG 12		TEST PIT NO: 641-2584								
ENGINEERING CAPITAL		BURWASH CREEK PIT		Project No: 552-202101-0328								
EX 400 BACKHOE		LOCATION: SEE PLAN PIT # 115-G-06A		ELEVATION: 0.00 (m)								
SAMPLE TYPE <input checked="" type="checkbox"/> RETURN		<input checked="" type="checkbox"/> S.P.T.		<input checked="" type="checkbox"/> AUGER								
		<input type="checkbox"/> BULK		<input type="checkbox"/> TUBE								
				<input type="checkbox"/> CORE								
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES ▲			USC	SOIL SYMBOL	PERCENT SAND ◆			DEPTH (m)
				PLASTIC	M.C.	LIQUID			20	40	60	
0.0	POORLY GRADED GRAVEL WITH SAND (GP) -brown -damp -maximum 300mm diameter -easy digging		19									0.0
1.0	-damp to moist below 2.0m											1.0
2.0												2.0
3.0			20									3.0
4.0	-saturated / water @ 3.6m											4.0
4.0	SILT -wet											4.0
5.0	SEAM OF GRAVEL											5.0
5.0	END HOLE @ 4.8m											5.0
6.0												6.0
Government of Yukon Transportation Engineering				LOGGED BY: GC REVIEWED BY: Fig. No: 115-G-06A				COMPLETION DEPTH: 4.8 m COMPLETE: 05/11/02				

SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 12	TEST PIT NO: 641-2585
ENGINEERING CAPITAL	BURWASH CREEK PIT	Project No: 552-202101-0328
EX 400 BACKHOE	LOCATION: SEE PLAN PIT # 115-G-06A	ELEVATION: 0.00 (m)
SAMPLE TYPE	<input checked="" type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE	



Government of Yukon Transportation Engineering	LOGGED BY: GC	COMPLETION DEPTH: 5.0 m
	REVIEWED BY:	COMPLETE: 06/11/02
	Fig. No: 115-G-06A	Page 1 of 1

SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 12	TEST PIT NO: 641-2586
ENGINEERING CAPITAL	BURWASH CREEK PIT	Project No: 552-202101-0328
EX 400 BACKHOE	LOCATION: SEE PLAN PIT # 115-G-06A	ELEVATION: 0.00 (m)
SAMPLE TYPE <input checked="" type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE		



Government of Yukon
Transportation Engineering

LOGGED BY: GC

REVIEWED BY:

Fig. No: 115-G-06A

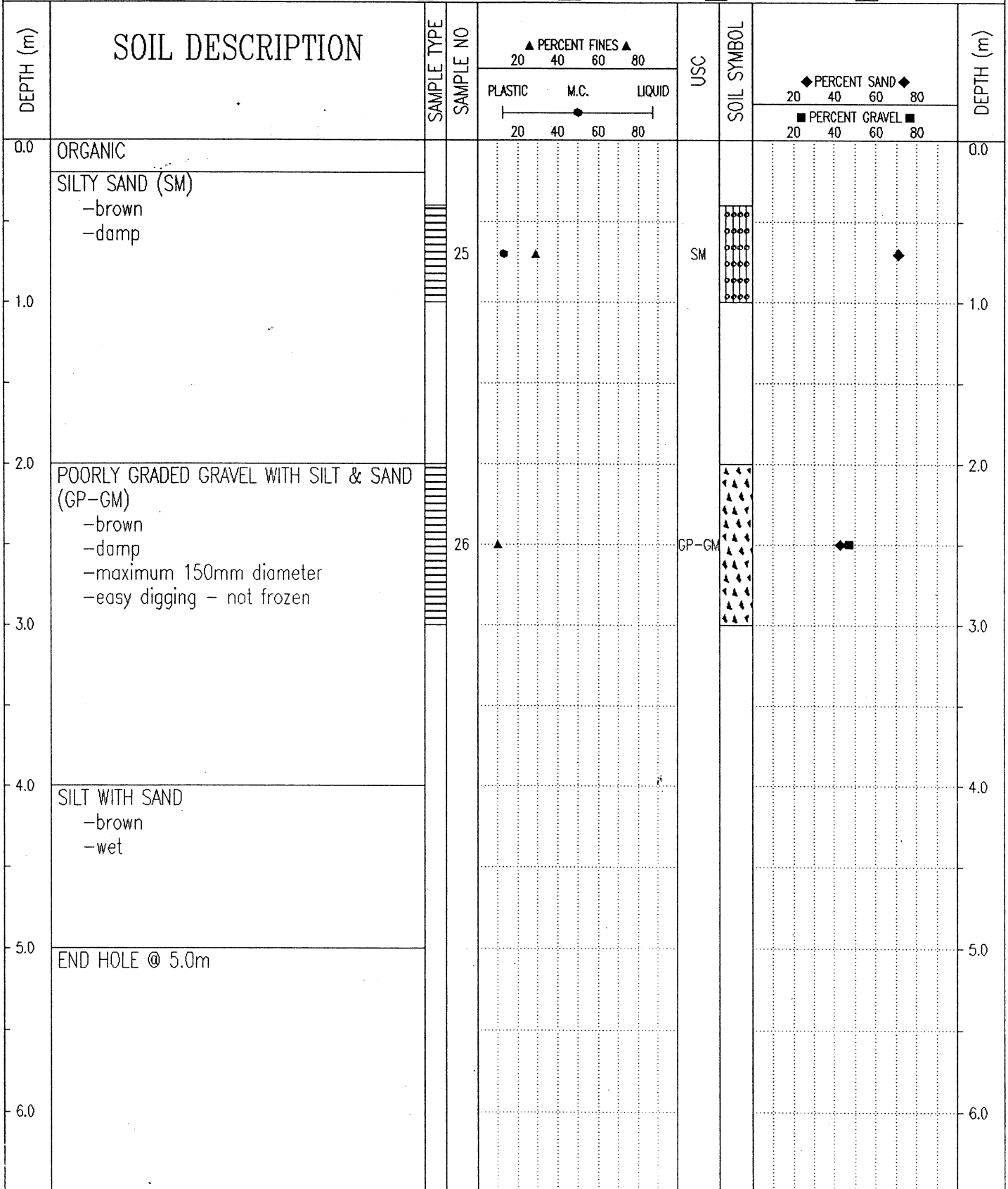
COMPLETION DEPTH: 4.0 m

COMPLETE: 06/11/02

Page 1 of 1

SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 12	TEST PIT NO: 641-2587
ENGINEERING CAPITAL	BURWASH CREEK PIT	Project No: 552-202101-0328
EX 400 BACKHOE	LOCATION: SEE PLAN PIT # 115-G-06A	ELEVATION: 0.00 (m)

SAMPLE TYPE RETURN S.P.T. AUGER BULK TUBE CORE



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Transportation Engineering

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REVIEWED BY:
Fig. No: 115-G-06A
COMPLETION DEPTH: 5.0 m
COMPLETE: 06/11/02
Page 1 of 1

SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 12	TEST PIT NO: 641-2588
ENGINEERING CAPITAL	BURWASH CREEK PIT	Project No: 552-202101-0328
EX 400 BACKHOE	LOCATION: SEE PLAN PIT # 115-G-06A	ELEVATION: 0.00 (m)
SAMPLE TYPE <input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE		

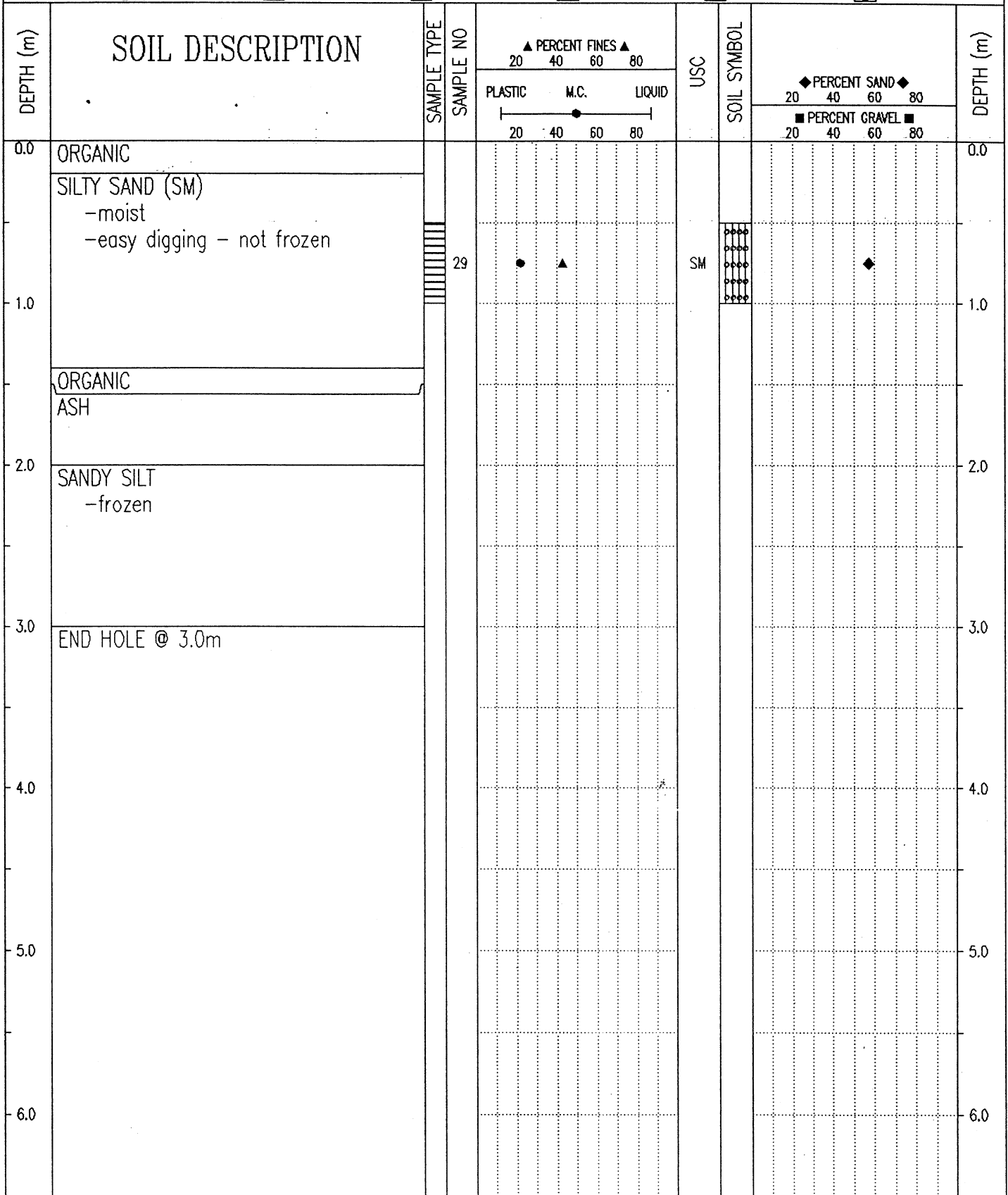
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES			USC	SOIL SYMBOL	DEPTH (m)
				PLASTIC	M.C.	LIQUID			
0.0	ORGANIC SAND -brown -damp -lost sample # 27		27						0.0
1.0									1.0
2.0	SANDY GRAVEL -brown -damp -maximum 200mm diameter -easy digging, not frozen -lost sample # 28		28						2.0
3.0									3.0
4.0	SILT -brown -wet -water table @ 4.0m								4.0
5.0	GRAVEL SEAM -wet								5.0
	SILT -wet END HOLE @ 5.0m								
6.0									6.0

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REVIEWED BY:
Fig. No: 115-G-06A

COMPLETION DEPTH: 5.0 m
COMPLETE: 06/11/02

SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 12	TEST PIT NO: 641-2589
ENGINEERING CAPITAL	BURWASH CREEK PIT	Project No: 552-202101-0328
EX 400 BACKHOE	LOCATION: SEE PLAN PIT # 115-G-06A	ELEVATION: 0.00 (m)
SAMPLE TYPE <input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE		

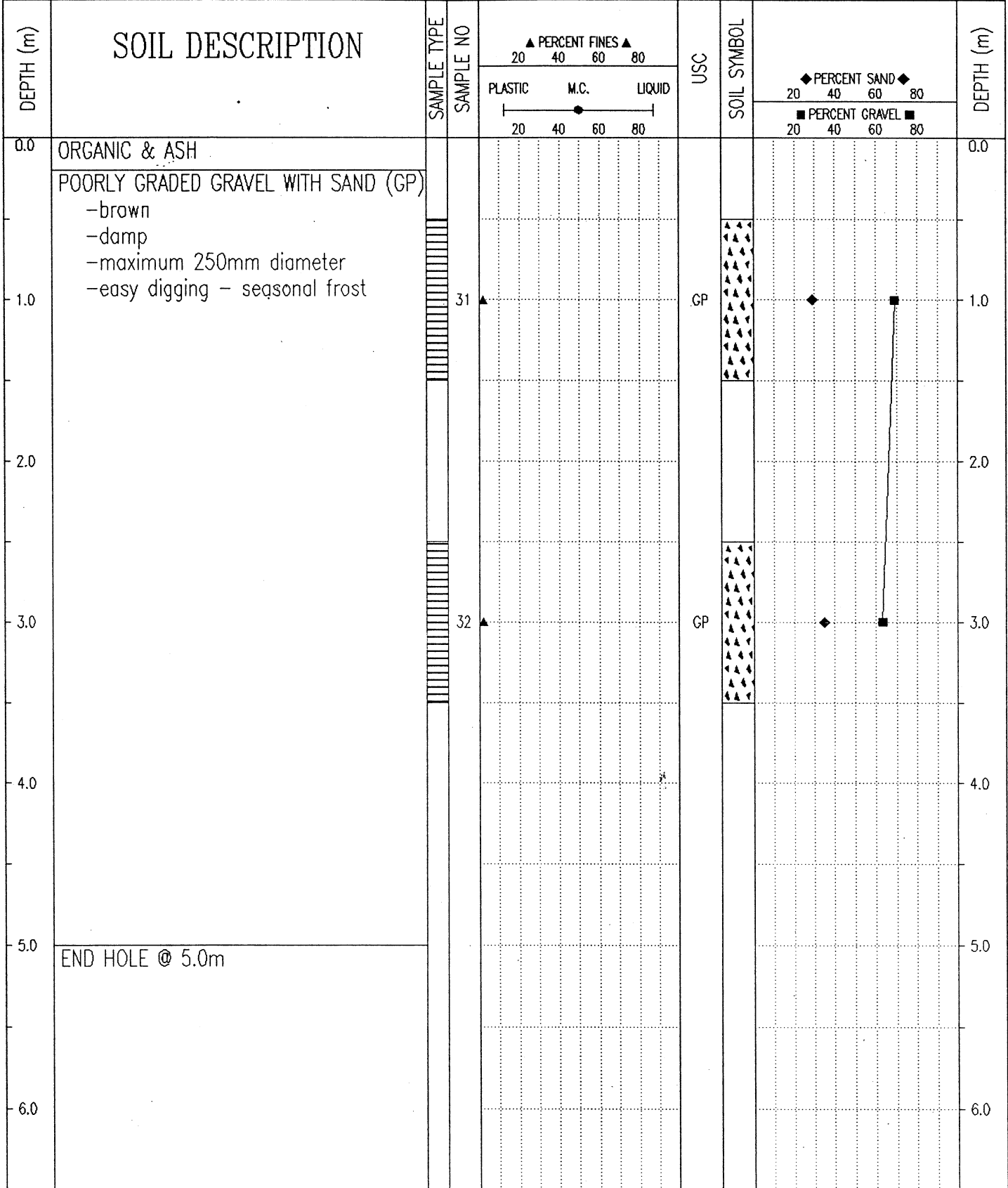


Government of Yukon Transportation Engineering	LOGGED BY: GC	COMPLETION DEPTH: 3.0 m
	REVIEWED BY:	COMPLETE: 06/11/02
	Fig. No: 115-G-06A	Page 1 of 1

SUBSURFACE EXPLORATION & TESTING REPORT		SHAKWAK SEG 12		TEST PIT NO: 641-2590									
ENGINEERING CAPITAL		BURWASH CREEK PIT		Project No: 552-202101-0328									
EX 400 BACKHOE		LOCATION: SEE PLAN PIT # 115-G-06A		ELEVATION: 0.00 (m)									
SAMPLE TYPE <input type="checkbox"/> RETURN		<input checked="" type="checkbox"/> S.P.T.		<input checked="" type="checkbox"/> AUGER									
		<input type="checkbox"/> BULK		<input type="checkbox"/> TUBE									
				<input type="checkbox"/> CORE									
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES ▲			USC	SOIL SYMBOL	PERCENT SAND ◆			PERCENT GRAVEL ■	DEPTH (m)
				PLASTIC	M.C.	LIQUID			20	40	60		
0.0	ORGANIC SILT -brown -moist -easy digging												0.0
1.0	POORLY GRADED GRAVEL WITH SAND (GP) -clean		30 ▲				GP	▲▲▲▲▲▲▲▲	◆	■			1.0
2.0	SILT -brown -moist												2.0
3.0	END HOLE @ 3.0m												3.0
4.0													4.0
5.0													5.0
6.0													6.0
Government of Yukon Transportation Engineering				LOGGED BY: GC				COMPLETION DEPTH: 3.0 m					
				REVIEWED BY:				COMPLETE: 06/11/02					
				Fig. No: 115-G-06A				Page 1 of 1					

SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 12	TEST PIT NO: 641-2591
ENGINEERING CAPITAL	BURWASH CREEK PIT	Project No: 552-202101-0328
EX 400 BACKHOE	LOCATION: SEE PLAN PIT # 115-G-06A	ELEVATION: 0.00 (m)

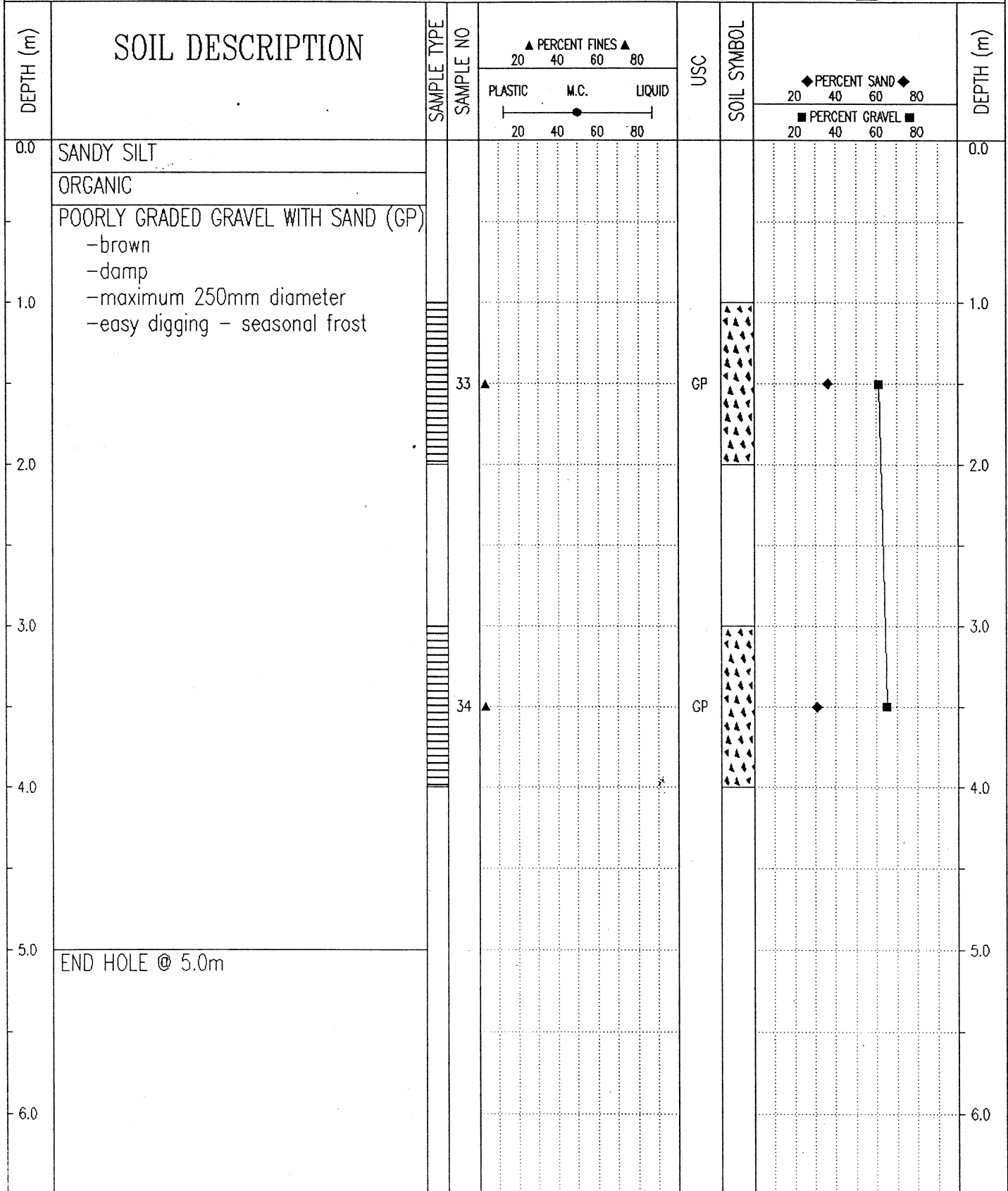
SAMPLE TYPE RETURN S.P.T. AUGER BULK TUBE CORE



Government of Yukon Transportation Engineering	LOGGED BY: GC	COMPLETION DEPTH: 5.0 m
	REVIEWED BY:	COMPLETE: 06/11/02
	Fig. No: 115-G-06A	Page 1 of 1

SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 12	TEST PIT NO: 641-2592
ENGINEERING CAPITAL	BURWASH CREEK PIT	Project No: 552-202101-0328
EX 400 BACKHOE	LOCATION: SEE PLAN PIT # 115-G-06A	ELEVATION: 0.00 (m)

SAMPLE TYPE RETURN S.P.T. AUGER BULK TUBE CORE



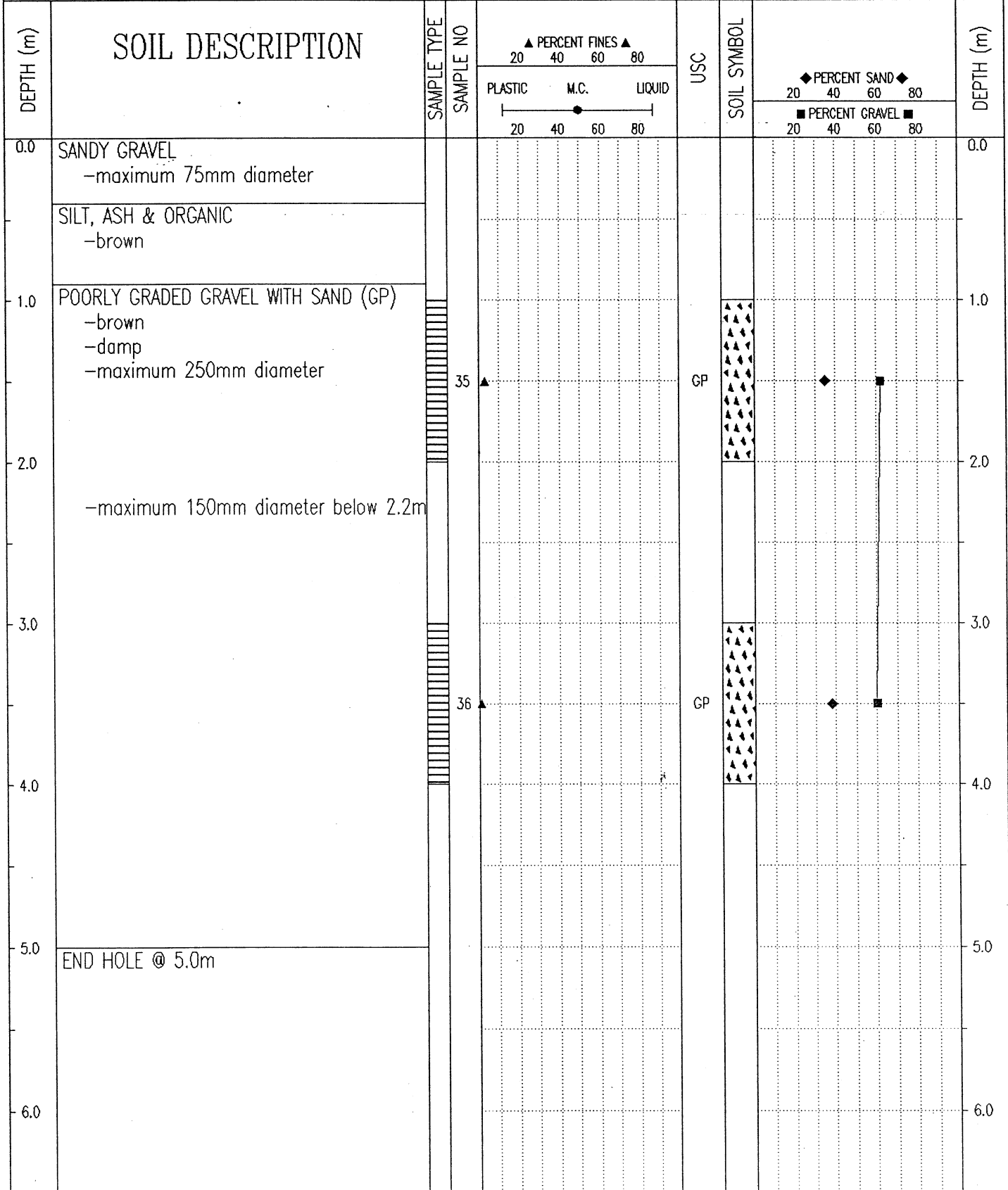
Government of Yukon
Transportation Engineering

LOGGED BY: GC
REVIEWED BY:
Fig. No: 115-G-06A

COMPLETION DEPTH: 5.0 m
COMPLETE: 06/11/02

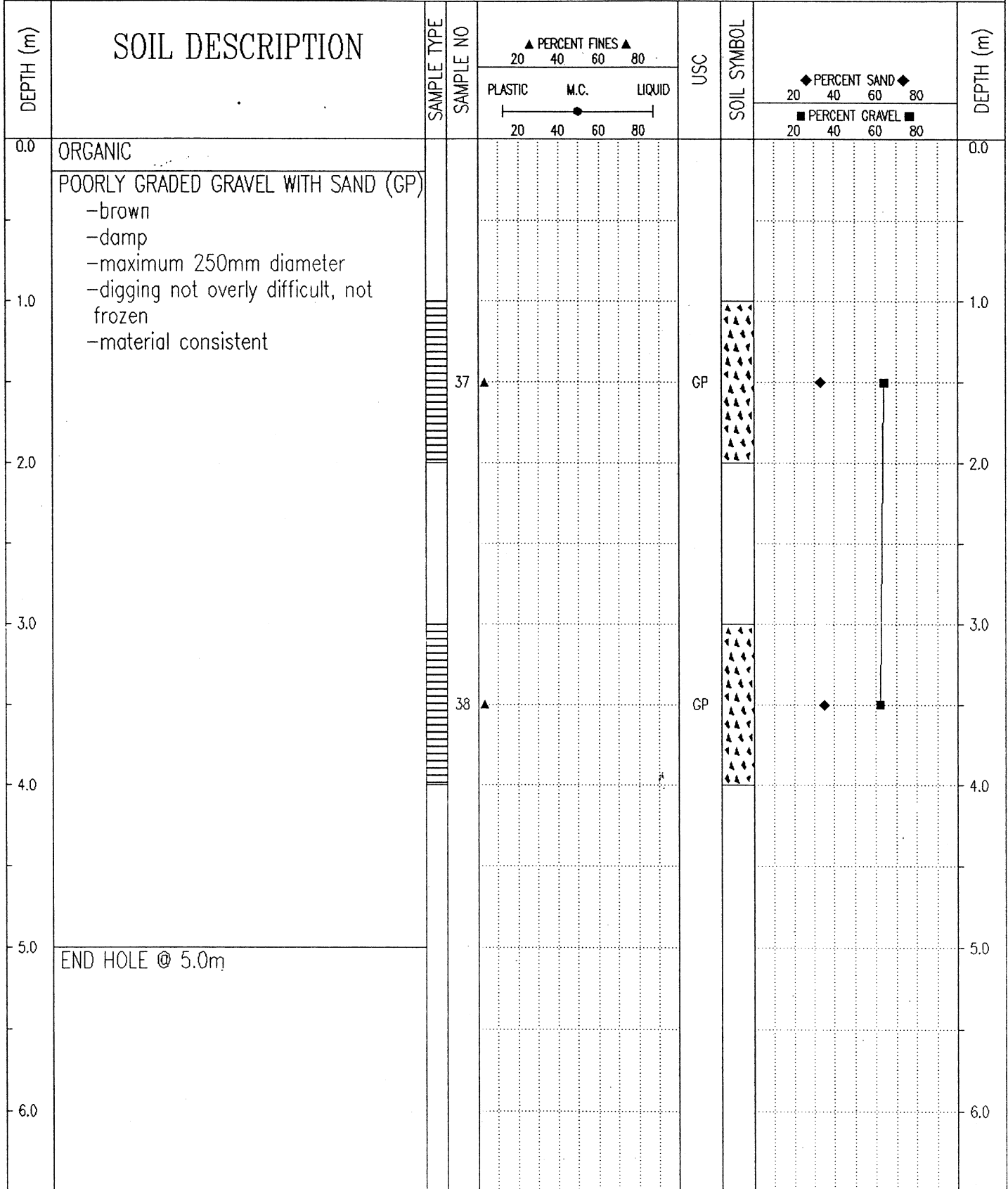
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ENGINEERING CAPITAL	BURWASH CREEK PIT	Project No: 552-202101-0328
EX 400 BACKHOE	LOCATION: SEE PLAN PIT # 115-G-06A	ELEVATION: 0.00 (m)

SAMPLE TYPE RETURN S.P.T. AUGER BULK TUBE CORE



Government of Yukon Transportation Engineering	LOGGED BY: GC	COMPLETION DEPTH: 5.0 m
	REVIEWED BY:	COMPLETE: 06/11/02
	Fig. No: 115-G-06A	Page 1 of 1

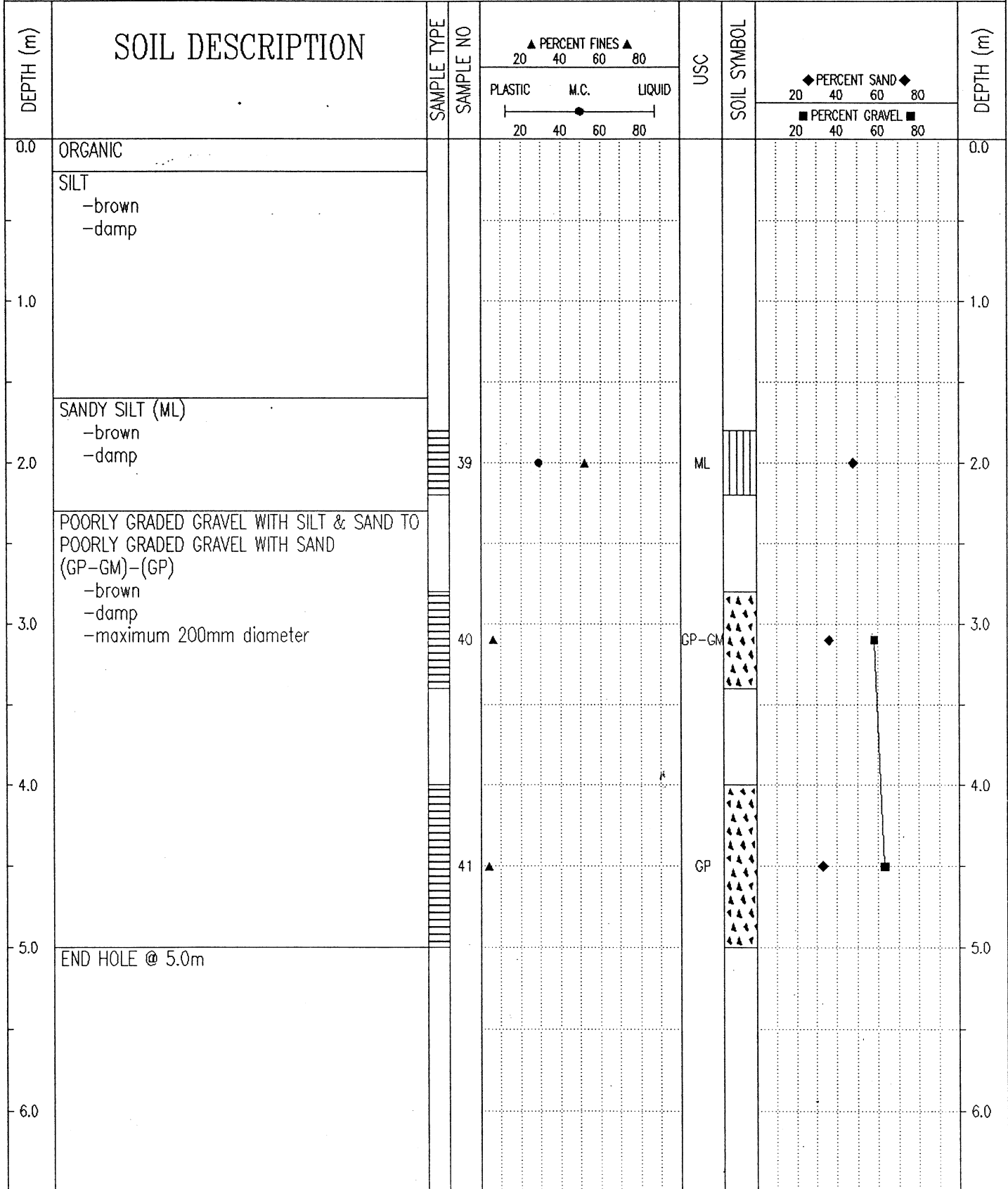
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ENGINEERING CAPITAL	BURWASH CREEK PIT	Project No: 552-202101-0328
EX 400 BACKHOE	LOCATION: SEE PLAN PIT # 115-G-06A	ELEVATION: 0.00 (m)
SAMPLE TYPE <input checked="" type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE		



Government of Yukon Transportation Engineering	LOGGED BY: GC	COMPLETION DEPTH: 5.0 m
	REVIEWED BY:	COMPLETE: 06/11/02
	Fig. No: 115-G-06A	Page 1 of 1

SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 12	TEST PIT NO: 641-2595
ENGINEERING CAPITAL	BURWASH CREEK PIT	Project No: 552-202101-0328
EX 400 BACKHOE	LOCATION: SEE PLAN PIT # 115-G-06A	ELEVATION: 0.00 (m)

SAMPLE TYPE RETURN S.P.T. AUGER BULK TUBE CORE



Government of Yukon
Transportation Engineering

LOGGED BY: GC

REVIEWED BY:

Fig. No: 115-G-06A

COMPLETION DEPTH: 5.0 m

COMPLETE: 06/11/02

Page 1 of 1

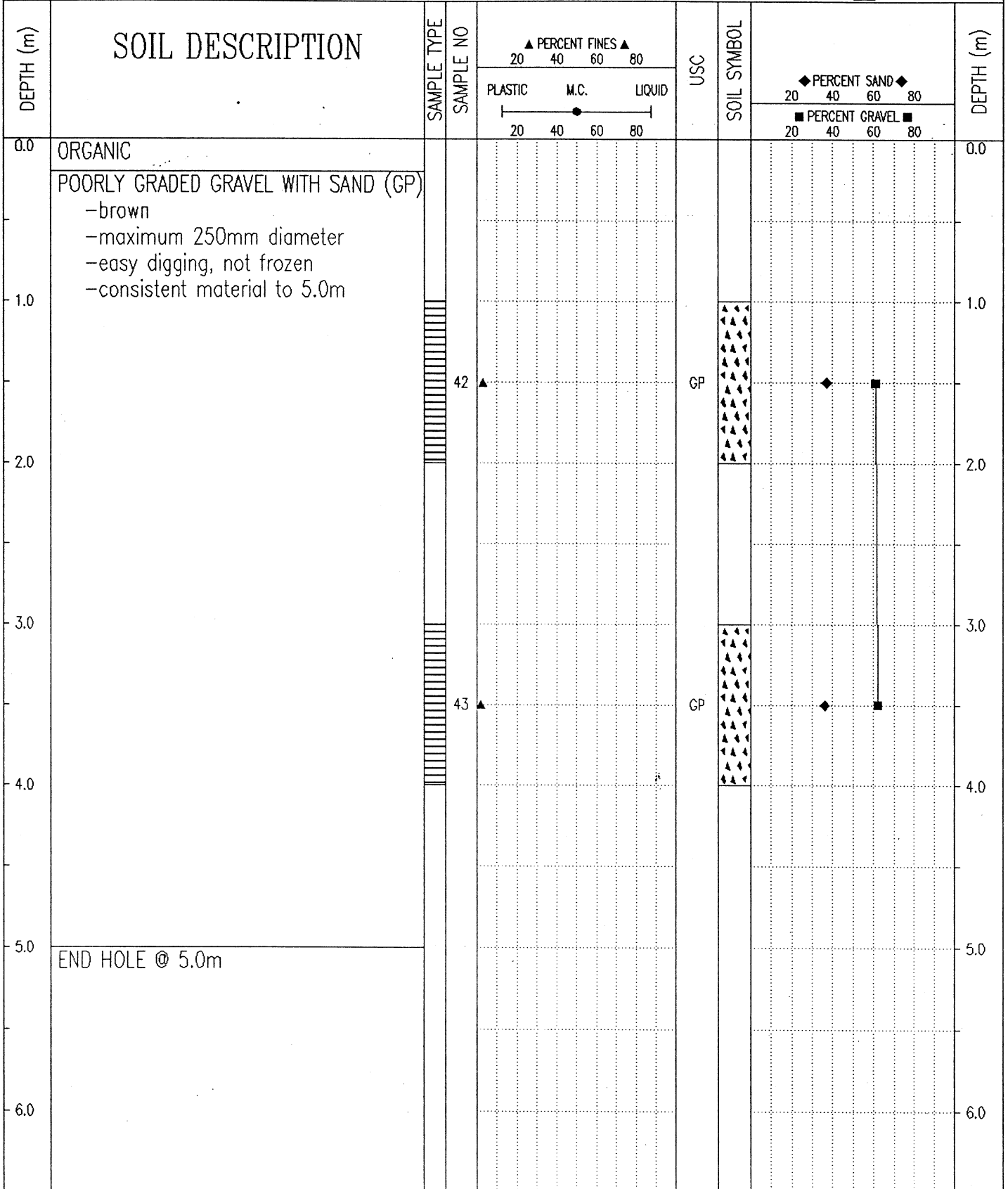
SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 12	TEST PIT NO: 641-2596
ENGINEERING CAPITAL	BURWASH CREEK PIT	Project No: 552-202101-0328
EX 400 BACKHOE	LOCATION: SEE PLAN PIT # 115-G-06A	ELEVATION: 0.00 (m)

SAMPLE TYPE RETURN S.P.T. AUGER BULK TUBE CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES ▲			USC	SOIL SYMBOL	PERCENT SAND ◆			DEPTH (m)
				PLASTIC	M.C.	LIQUID			20	40	60	
0.0	ORGANIC											0.0
	VISIBLE LAYERS OF ICE WITH SILT -slow digging, permafrost											
1.0	SILT -frozen, no visible ice -slower in frozen silt, no sample											1.0
2.0												2.0
3.0	SANDY GRAVEL -frozen -scratching in gravel only											3.0
	END HOLE @ 3.0m											
4.0												4.0
5.0												5.0
6.0												6.0

Government of Yukon Transportation Engineering	LOGGED BY: GC	COMPLETION DEPTH: 3.0 m
	REVIEWED BY:	COMPLETE: 06/11/02
	Fig. No: 115-G-06A	Page 1 of 1

SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 12	TEST PIT NO: 641-2597
ENGINEERING CAPITAL	BURWASH CREEK PIT	Project No: 552-202101-0328
EX 400 BACKHOE	LOCATION: SEE PLAN PIT # 115-G-06A	ELEVATION: 0.00 (m)
SAMPLE TYPE <input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE		



Government of Yukon
Transportation Engineering

LOGGED BY: GC

REVIEWED BY:

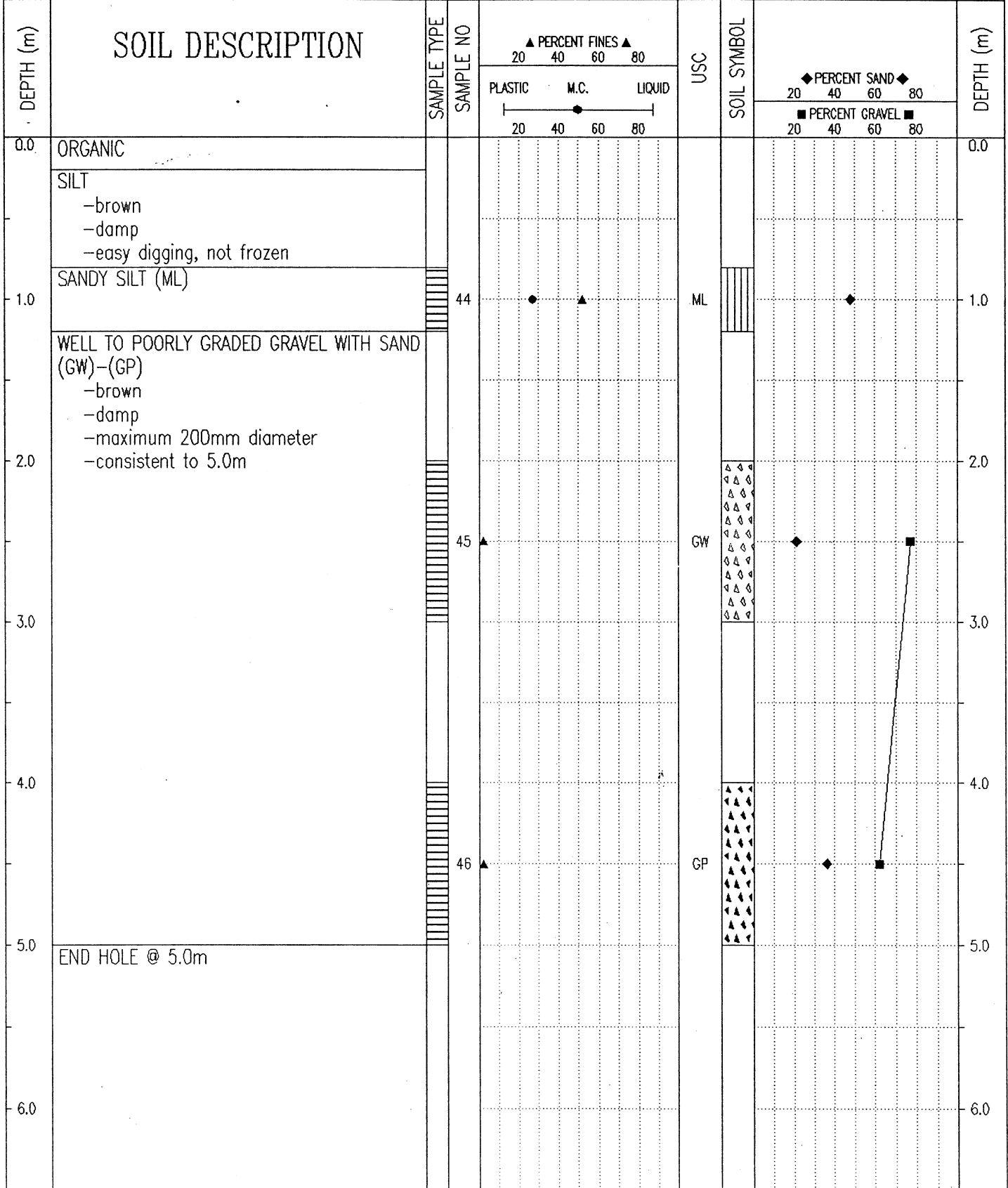
Fig. No: 115-G-06A

COMPLETION DEPTH: 5.0 m

COMPLETE: 07/11/02

Page 1 of 1

SUBSURFACE EXPLORATION & TESTING REPORT		SHAKWAK SEG 12	TEST PIT NO: 641-2598
ENGINEERING CAPITAL		BURWASH CREEK PIT	Project No: 552-202101-0328
EX 400 BACKHOE		LOCATION: SEE PLAN PIT # 115-G-06A	ELEVATION: 0.00 (m)
SAMPLE TYPE	<input checked="" type="checkbox"/> RETURN	<input checked="" type="checkbox"/> S.P.T.	<input checked="" type="checkbox"/> AUGER
		<input type="checkbox"/> BULK	<input type="checkbox"/> TUBE
			<input type="checkbox"/> CORE



Government of Yukon Transportation Engineering		LOGGED BY: GC	COMPLETION DEPTH: 5.0 m
		REVIEWED BY:	COMPLETE: 07/11/02
		Fig. No: 115-G-06A	Page 1 of 1

SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 12	TEST PIT NO: 641-2599
ENGINEERING CAPITAL	BURWASH CREEK PIT	Project No: 552-202101-0328
EX 400 BACKHOE	LOCATION: SEE PLAN PIT # 115-G-06A	ELEVATION: 0.00 (m)
SAMPLE TYPE <input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE		

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES ▲			USC	SOIL SYMBOL	PERCENT SAND ◆		PERCENT GRAVEL ■	DEPTH (m)
				PLASTIC	M.C.	LIQUID			20	40		
0.0	ORGANIC										0.0	
	VISIBLE ICE WITH SILT -permafrost -tough digging											
1.0	SILT -frozen										1.0	
2.0	SILTY SAND WITH GRAVEL (SM) -frozen with ice		47		▲		SM	◆	◆	■	2.0	
2.2	END HOLE @ 2.2m										2.2	
3.0											3.0	
4.0											4.0	
5.0											5.0	
6.0											6.0	

Government of Yukon
Transportation Engineering

LOGGED BY: GC

REVIEWED BY:

Fig. No: 115-G-06A

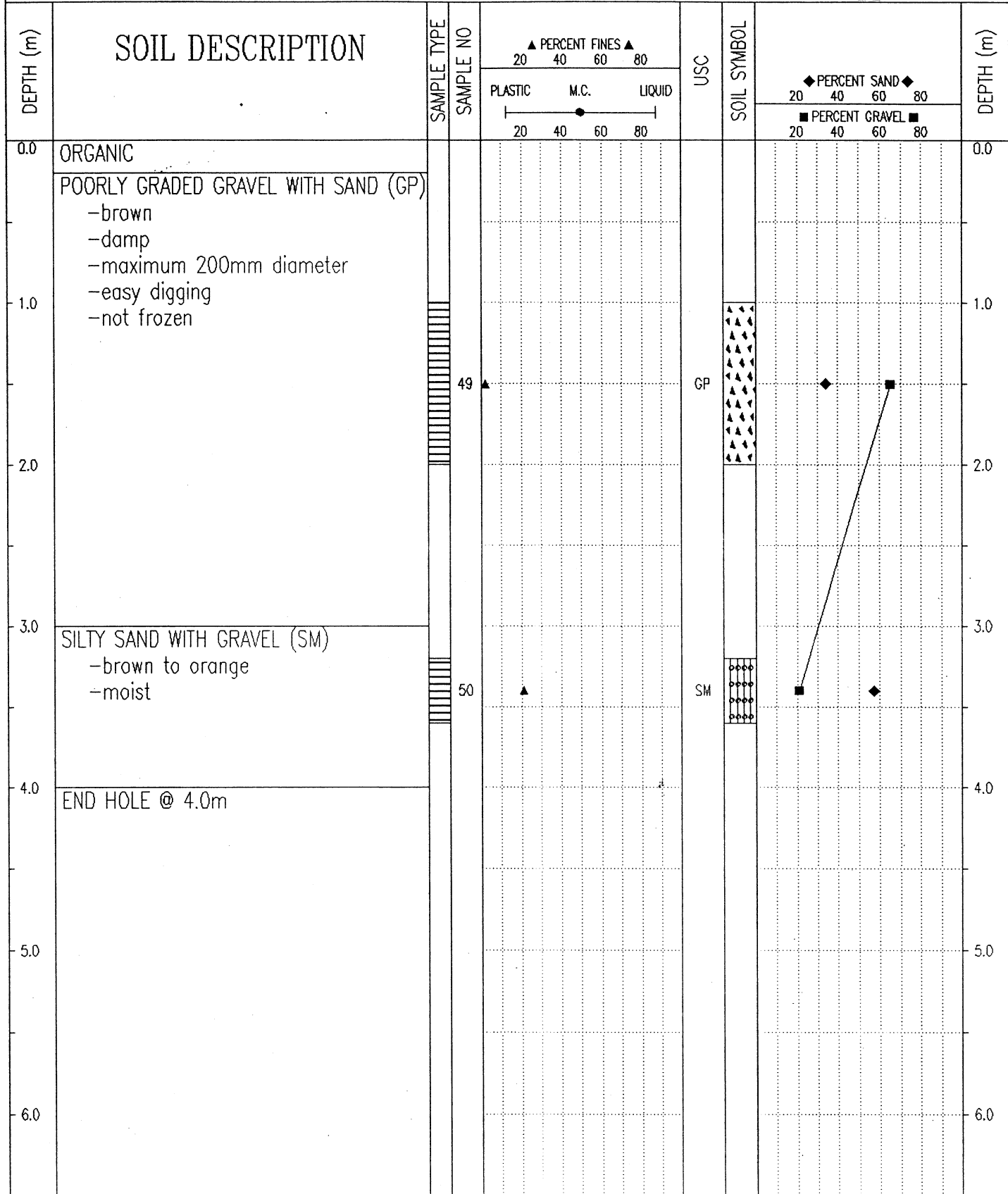
COMPLETION DEPTH: 2.2 m

COMPLETE: 07/11/02

Page 1 of 1

SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 12	TEST PIT NO: 642-2601
ENGINEERING CAPITAL	BURWASH CREEK PIT	Project No: 552-202101-0328
EX 400 BACKHOE	LOCATION: SEE PLAN PIT # 115-G-06A	ELEVATION: 0.00 (m)

SAMPLE TYPE RETURN S.P.T. AUGER BULK TUBE CORE



Government of Yukon
Transportation Engineering

LOGGED BY: GC

REVIEWED BY:

Fig. No: 115-G-06A

COMPLETION DEPTH: 4.0 m

COMPLETE: 07/11/02

Km 1776.0 LHS Alaska Highway #1
Pit Ident. 115 G-06A (Burwash Creek)

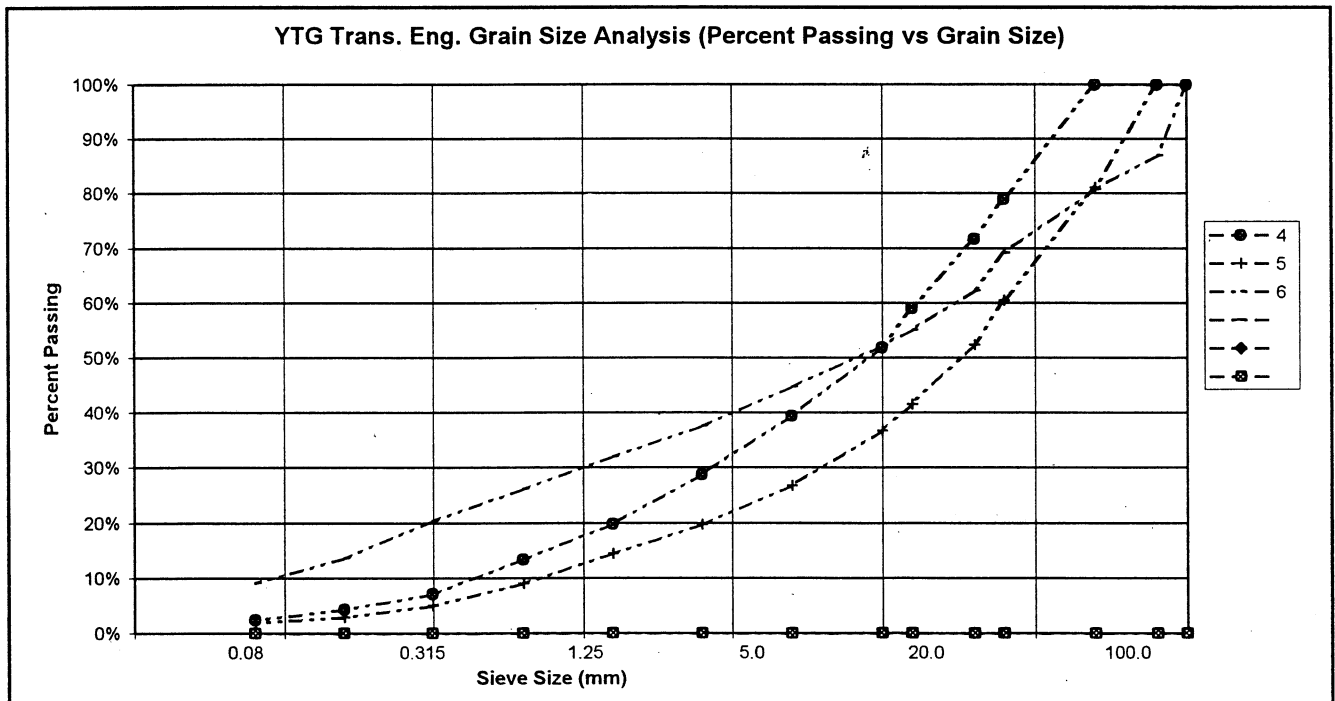
2002
Pit Run Sample Results

PROJECT NUMBER: 552-202101-0328-1
 CLIENT: Engineering Capital
 PROJECT NAME: Shakwak Granular Investigation
 PROJECT LOCATION: Burwash Pit & Channel
 DRILL UNIT: Ex 400 Backhoe
 HOLE LOCATION: See Plan
 LOGGED BY: G.C.

HOLE No.: 641-2579

DATE COMP: Nov 6/02

FIELD NO:	4	5	6		
LAB NO:	1015	1016	1017		
DEPTH:	00-1.0	2.0-3.0	4.0-5.0		
TYPE:	BULK	BULK	BULK	BULK	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%		
80.0	100%	100%	87%		
50.0	100%	81%	81%		
25.0	79%	60%	69%		
20.0	72%	52%	62%		
12.5	59%	42%	55%		
10.0	52%	37%	52%		
5.0	39%	27%	45%		
2.5	29%	20%	38%		
1.25	20%	14%	32%		
0.630	13%	9%	26%		
0.315	7%	5%	20%		
0.160	4%	3%	14%		
0.080	2%	2%	9%		
M.C.(%):					
LIQUID LIMIT:	0.0	0.0	0.0		
PLASTIC LIMIT:	0.0	0.0	0.0		
PLASTIC INDEX:	0.0	0.0	0.0		
% GRAVEL:	61	73	55		
% SAND:	37	25	36		
% FINES:	2	2	9		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)		

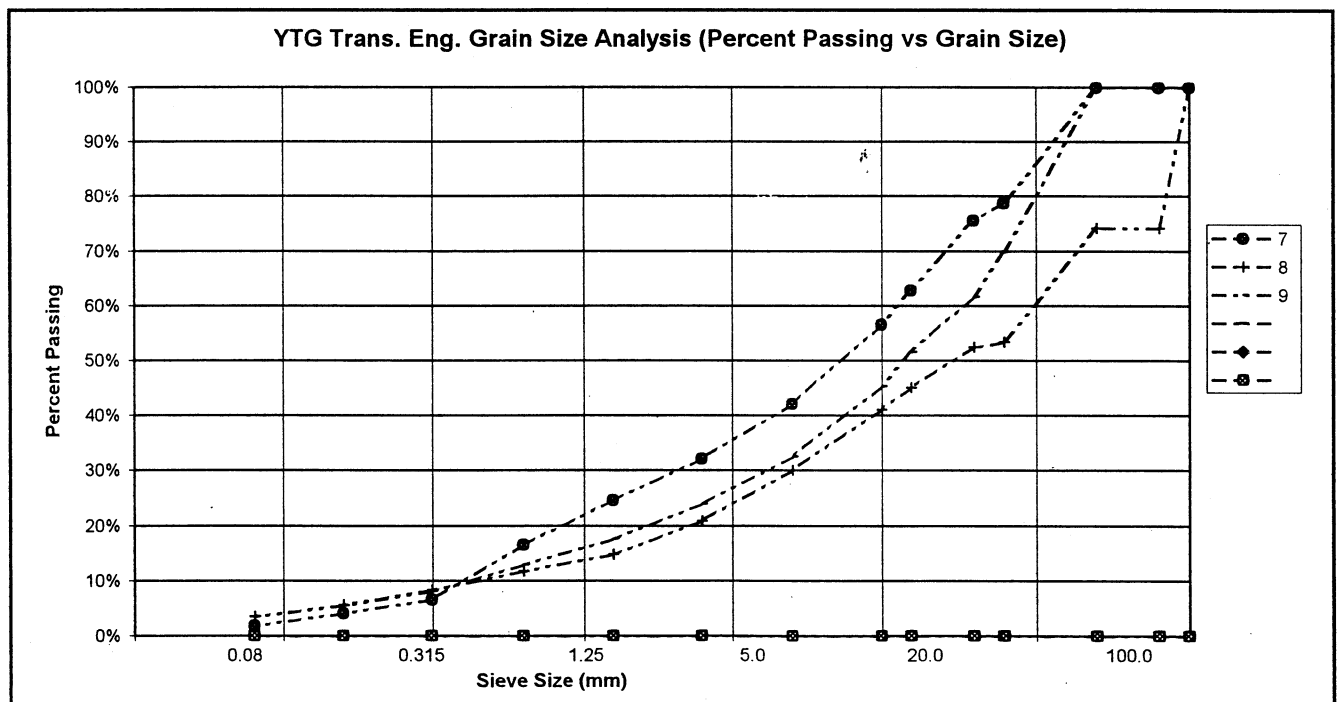


PROJECT NUMBER: 552-202101-0328-1
 CLIENT: Engineering Capital
 PROJECT NAME: Shakwak Granular Investigation
 PROJECT LOCATION: Burwash Pit & Channel
 DRILL UNIT: Ex 400 Backhoe
 HOLE LOCATION: See Plan
 LOGGED BY: G.C.

HOLE No.: 641-2580

DATE COMP: Nov 6/02

FIELD NO:	7	8	9		
LAB NO:	1018	1019	1020		
DEPTH:	0.2-1.0	1.5-2.5	4.0-5.0		
TYPE:	BULK	BULK	BULK	BULK	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%		
80.0	100%	74%	100%		
50.0	100%	74%	100%		
25.0	79%	53%	70%		
20.0	76%	52%	62%		
12.5	63%	45%	52%		
10.0	57%	41%	45%		
5.0	42%	30%	32%		
2.5	32%	21%	24%		
1.25	25%	15%	18%		
0.630	17%	12%	13%		
0.315	7%	8%	8%		
0.160	4%	6%	5%		
0.080	2%	4%	3%		
M.C.(%):					
LIQUID LIMIT:	0.0	0.0	0.0		
PLASTIC LIMIT:	0.0	0.0	0.0		
PLASTIC INDEX:	0.0	0.0	0.0		
% GRAVEL:	58	70	68		
% SAND:	40	27	29		
% FINES:	2	4	3		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)		

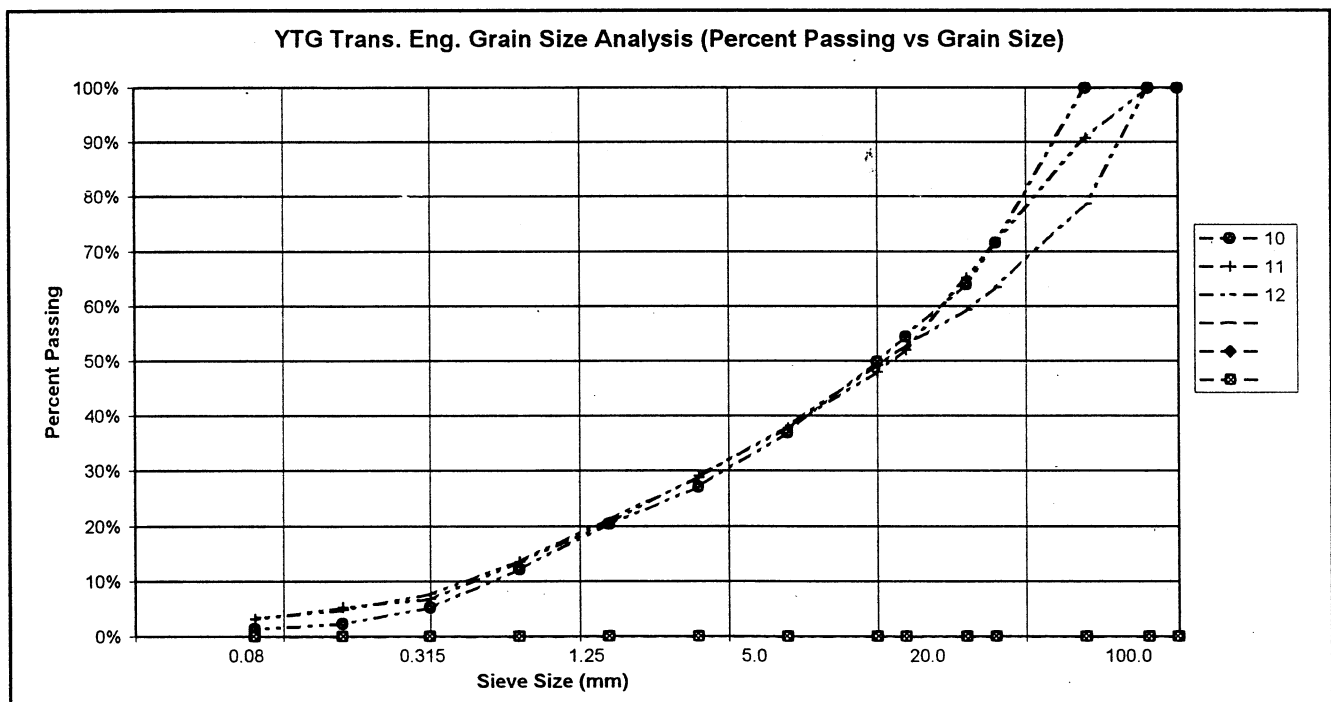


PROJECT NUMBER: 552-202101-0328-1
 CLIENT: Engineering Capital
 PROJECT NAME: Shakwak Granular Investigation
 PROJECT LOCATION: Burwash Pit & Channel
 DRILL UNIT: Ex 400 Backhoe
 HOLE LOCATION: See Plan
 LOGGED BY: G.C.

HOLE No.: 641-2581

DATE COMP: Nov 6/02

FIELD NO:	10	11	12		
LAB NO:	1021	1022	1023		
DEPTH:	0.4-1.0	2.0-3.0	4.0-5.0		
TYPE:	BULK	BULK	BULK	BULK	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%		
80.0	100%	100%	100%		
50.0	100%	91%	79%		
25.0	72%	72%	63%		
20.0	64%	65%	59%		
12.5	55%	52%	53%		
10.0	50%	48%	49%		
5.0	37%	38%	38%		
2.5	27%	29%	29%		
1.25	20%	21%	21%		
0.630	12%	14%	14%		
0.315	5%	7%	8%		
0.160	2%	5%	5%		
0.080	1%	3%	3%		
M.C.(%):					
LIQUID LIMIT:	0.0	0.0	0.0		
PLASTIC LIMIT:	0.0	0.0	0.0		
PLASTIC INDEX:	0.0	0.0	0.0		
% GRAVEL:	63	62	62		
% SAND:	36	35	35		
% FINES:	1	3	3		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)		

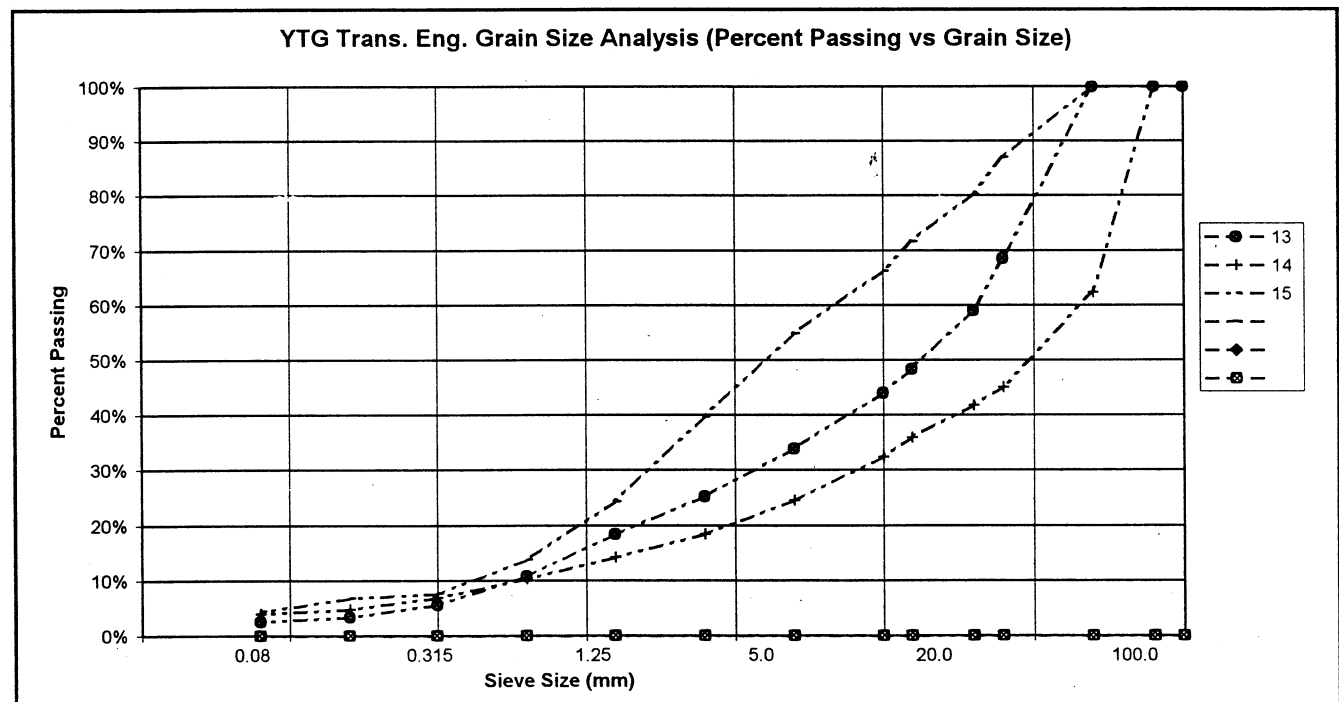


PROJECT NUMBER: 552-202101-0328-1
 CLIENT: Engineering Capital
 PROJECT NAME: Shakwak Granular Investigation
 PROJECT LOCATION: Burwash Pit & Channel
 DRILL UNIT: Ex 400 Backhoe
 HOLE LOCATION: See Plan
 LOGGED BY: G.C.

HOLE No.: 641-2582

DATE COMP: Nov 6/02

FIELD NO:	13	14	15		
LAB NO:	1024	1025	1026		
DEPTH:	0.0-1.0	2.0-3.0	4.0-5.0		
TYPE:	BULK	BULK	BULK	BULK	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%		
80.0	100%	100%	100%		
50.0	100%	62%	100%		
25.0	69%	45%	87%		
20.0	59%	42%	80%		
12.5	48%	36%	72%		
10.0	44%	32%	66%		
5.0	34%	25%	55%		
2.5	25%	18%	40%		
1.25	18%	14%	24%		
0.630	11%	10%	14%		
0.315	6%	7%	8%		
0.160	3%	5%	7%		
0.080	3%	4%	5%		
M.C.(%):					
LIQUID LIMIT:	0.0	0.0	0.0		
PLASTIC LIMIT:	0.0	0.0	0.0		
PLASTIC INDEX.:	0.0	0.0	0.0		
% GRAVEL:	66	75	45		
% SAND:	31	21	50		
% FINES:	3	4	5		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	WELL-GRADED SAND WITH GRAVEL (SW)		

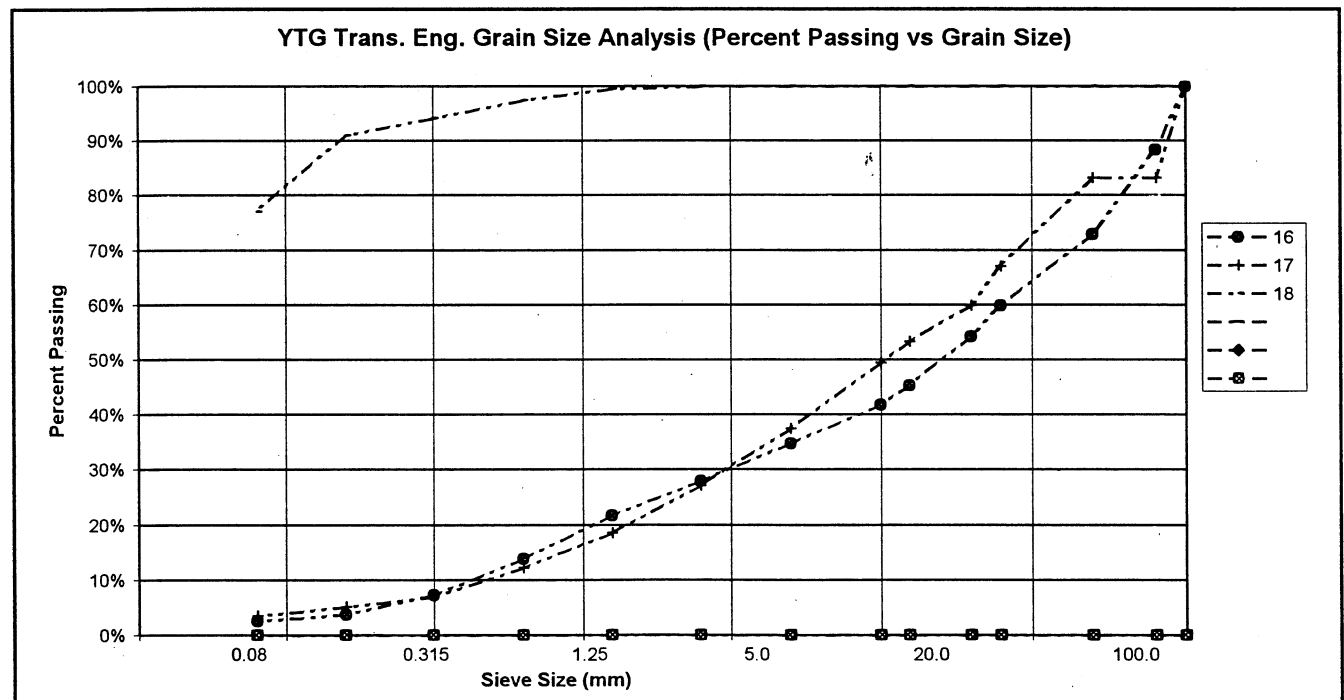


PROJECT NUMBER: 552-202101-0328-1
 CLIENT: Engineering Capital
 PROJECT NAME: Shakwak Granular Investigation
 PROJECT LOCATION: Burwash Pit & Channel
 DRILL UNIT: Ex 400 Backhoe
 HOLE LOCATION: See Plan
 LOGGED BY: G.C.

HOLE No.: 641-2583

DATE COMP: Nov 6/02

FIELD NO:	16	17	18		
LAB NO:	1027	1028	1029		
DEPTH:	0.0-1.0	2.0-3.0	3.5-4.2		
TYPE:	BULK	BULK	BULK	BULK	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%		
80.0	88%	83%	100%		
50.0	73%	83%	100%		
25.0	60%	67%	100%		
20.0	54%	60%	100%		
12.5	45%	53%	100%		
10.0	42%	49%	100%		
5.0	35%	37%	100%		
2.5	28%	27%	100%		
1.25	22%	19%	100%		
0.630	14%	12%	97%		
0.315	7%	7%	94%		
0.160	4%	5%	91%		
0.080	3%	3%	77%		
M.C.(%):			34%		
LIQUID LIMIT:	0.0	0.0	0.0		
PLASTIC LIMIT:	0.0	0.0	0.0		
PLASTIC INDEX.:	0.0	0.0	0.0		
% GRAVEL:	65	63	0		
% SAND:	32	34	23		
% FINES:	3	3	77		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	SILT WITH SAND (ML)		

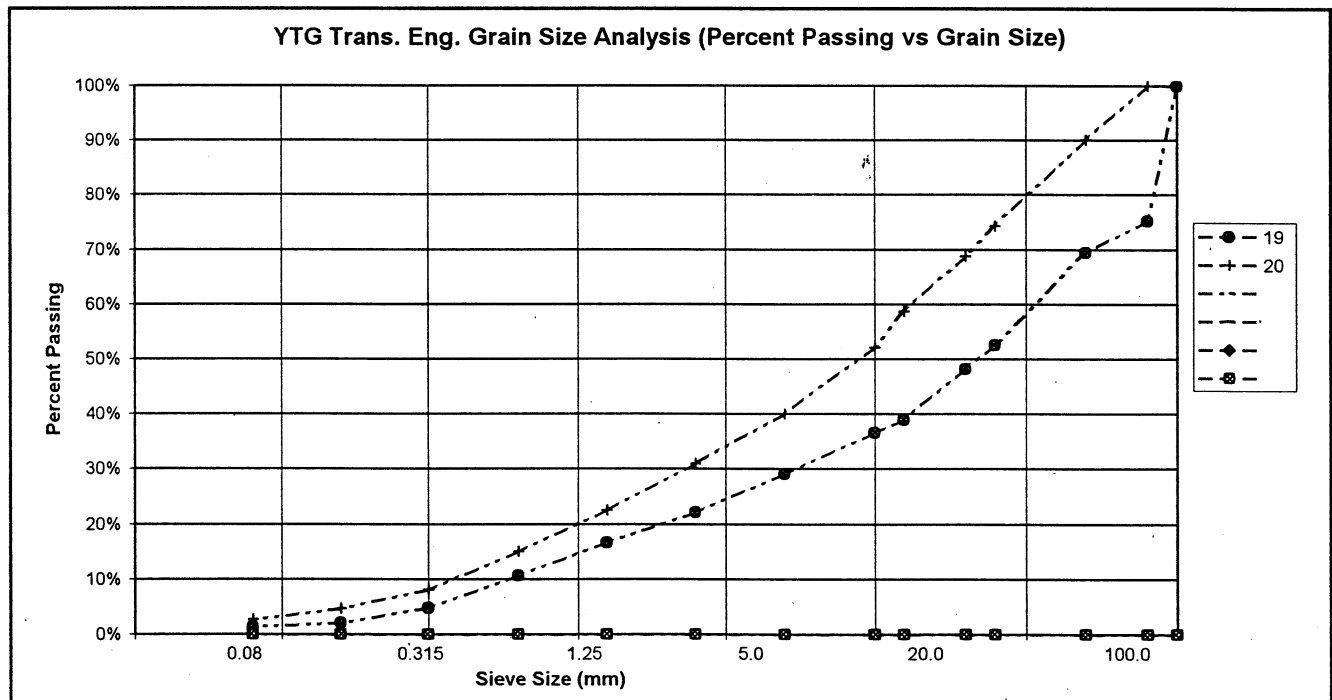


PROJECT NUMBER: 552-202101-0328-1
 CLIENT: Engineering Capital
 PROJECT NAME: Shakwak Granular Investigation
 PROJECT LOCATION: Burwash Pit & Channel
 DRILL UNIT: Ex 400 Backhoe
 HOLE LOCATION: See Plan
 LOGGED BY: G.C.

HOLE No.: 641-2584

DATE COMP: Nov 6/02

FIELD NO:	19	20			
LAB NO:	1030	1031			
DEPTH:	0.0-1.0	2.0-3.0			
TYPE:	BULK	BULK	BULK	BULK	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%			
80.0	75%	100%			
50.0	69%	90%			
25.0	53%	74%			
20.0	48%	69%			
12.5	39%	59%			
10.0	37%	52%			
5.0	29%	40%			
2.5	22%	31%			
1.25	17%	23%			
0.630	11%	15%			
0.315	5%	8%			
0.160	2%	5%			
0.080	1%	3%			
M.C. (%):					
LIQUID LIMIT:	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0			
% GRAVEL:	71	60			
% SAND:	28	37			
% FINES:	1	3			
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)			

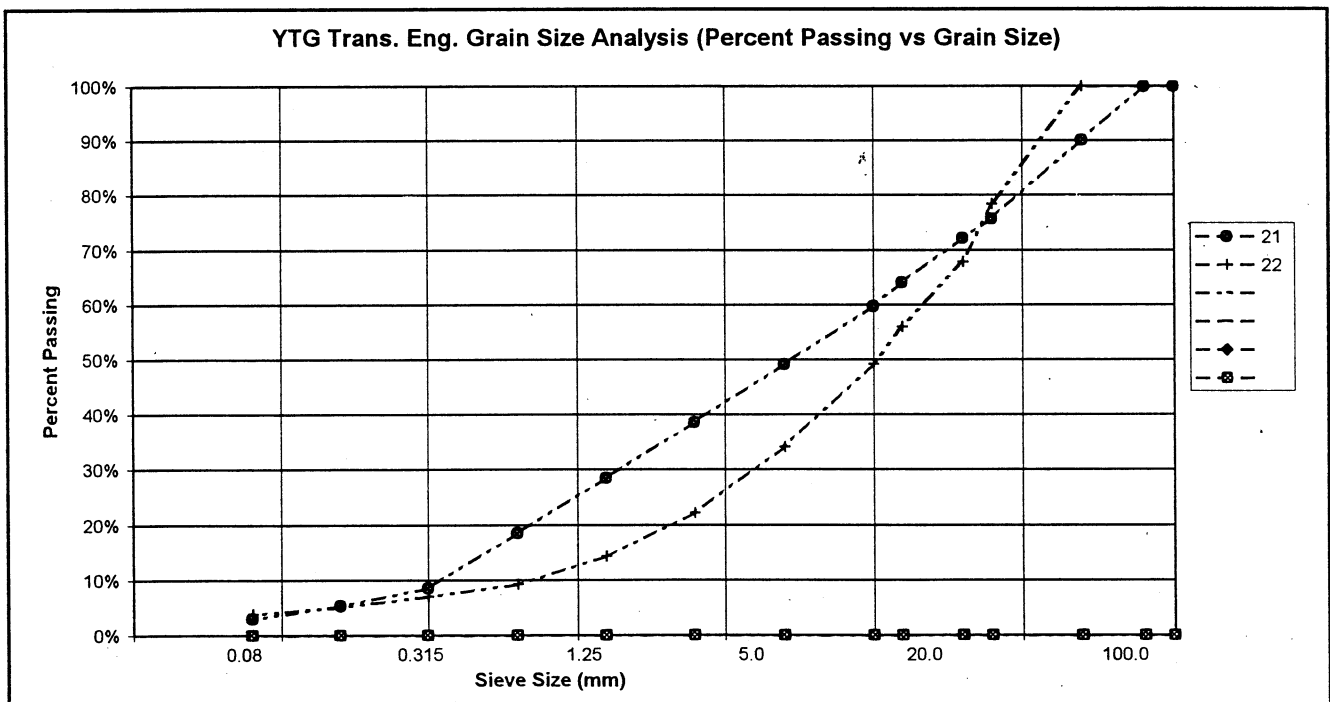


PROJECT NUMBER: 552-202101-0328-1
 CLIENT: Engineering Capital
 PROJECT NAME: Shakwak Granular Investigation
 PROJECT LOCATION: Burwash Pit & Channel
 DRILL UNIT: Ex 400 Backhoe
 HOLE LOCATION: See Plan
 LOGGED BY: G.C.

HOLE No.: 641-2585

DATE COMP: Nov 6/02

FIELD NO:	21	22			
LAB NO:	1032	1033			
DEPTH:	0.0-1.0	2.0-3.0			
TYPE:	BULK	BULK	BULK	BULK	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%			
80.0	100%	100%			
50.0	90%	100%			
25.0	76%	78%			
20.0	72%	68%			
12.5	64%	56%			
10.0	60%	49%			
5.0	49%	34%			
2.5	39%	22%			
1.25	29%	14%			
0.630	19%	9%			
0.315	9%	7%			
0.160	5%	5%			
0.080	3%	4%			
M.C.(%):					
LIQUID LIMIT:	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0			
% GRAVEL:	51	66			
% SAND:	46	30			
% FINES:	3	4			
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)			

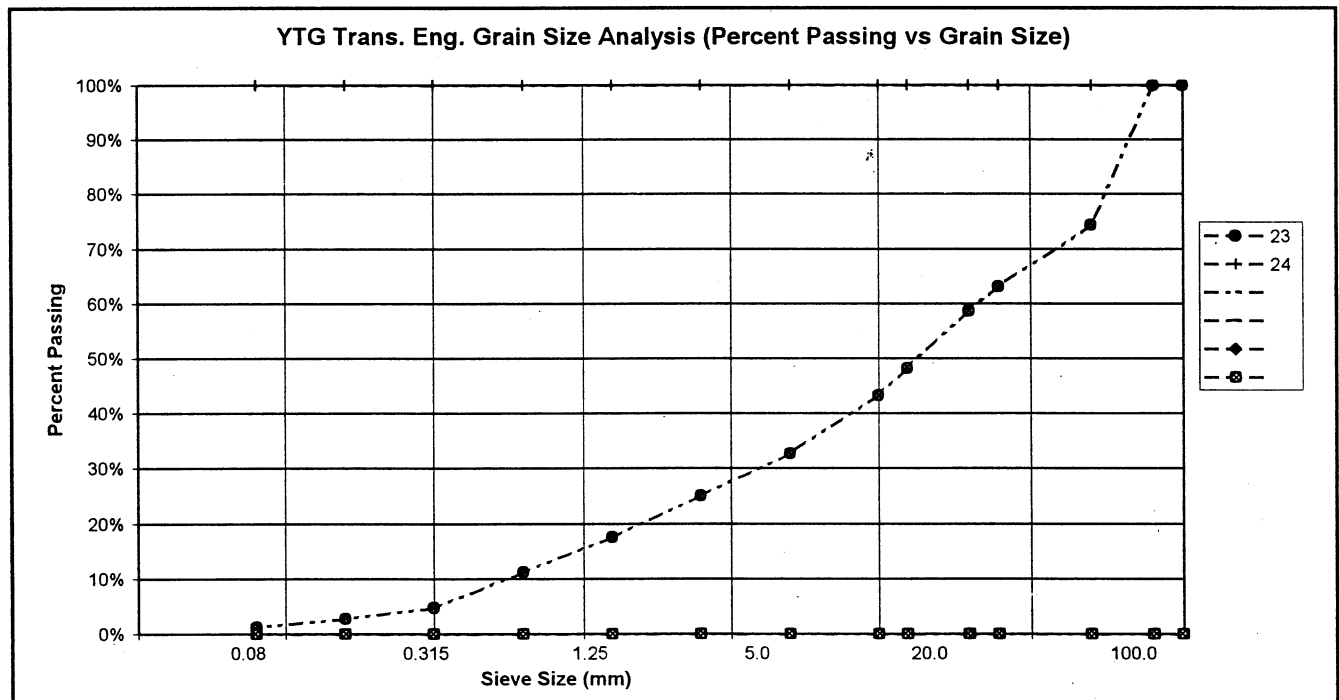


PROJECT NUMBER: 552-202101-0328-1
 CLIENT: Engineering Capital
 PROJECT NAME: Shakwak Granular Investigation
 PROJECT LOCATION: Burwash Pit & Channel
 DRILL UNIT: Ex 400 Backhoe
 HOLE LOCATION: See Plan
 LOGGED BY: G.C.

HOLE No.: 641-2586

DATE COMP: Nov 6/02

FIELD NO:	23	24			
LAB NO:	1034	lost			
DEPTH:	0.0-1.0	1.8-2.4			
TYPE:	BULK	BULK	BULK	BULK	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%			
80.0	100%	100%			
50.0	74%	100%			
25.0	63%	100%			
20.0	59%	100%			
12.5	48%	100%			
10.0	43%	100%			
5.0	33%	100%			
2.5	25%	100%			
1.25	18%	100%			
0.630	11%	100%			
0.315	5%	100%			
0.160	3%	100%			
0.080	1%	100%			
M.C.(%)					
LIQUID LIMIT:	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0			
% GRAVEL:	67	0			
% SAND:	31	0			
% FINES:	1	100			
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	SP (ML)			

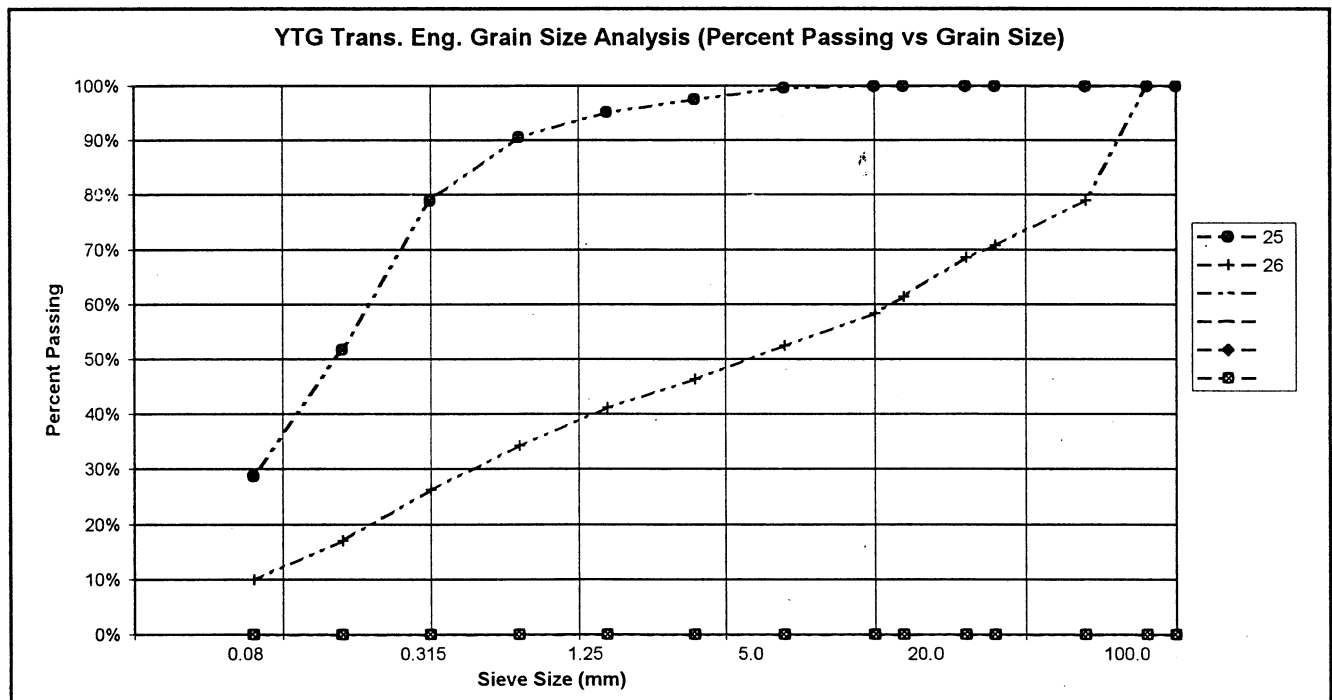


PROJECT NUMBER: 552-202101-0328-1
 CLIENT: Engineering Capital
 PROJECT NAME: Shakwak Granular Investigation
 PROJECT LOCATION: Burwash Pit & Channel
 DRILL UNIT: Ex 400 Backhoe
 HOLE LOCATION: See Plan
 LOGGED BY: G.C.

HOLE No.: 641-2587

DATE COMP: Nov 6/02

FIELD NO:	25	26			
LAB NO:	1036	1037			
DEPTH:	0.4-1.0	2.0-3.0			
TYPE:	BULK	BULK	BULK	BULK	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%			
80.0	100%	100%			
50.0	100%	79%			
25.0	100%	71%			
20.0	100%	69%			
12.5	100%	61%			
10.0	100%	58%			
5.0	100%	53%			
2.5	97%	46%			
1.25	95%	41%			
0.630	91%	34%			
0.315	79%	26%			
0.160	52%	17%			
0.080	29%	10%			
M.C.(%):	13%				
LIQUID LIMIT:	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0			
% GRAVEL:	0	47			
% SAND:	71	43			
% FINES:	29	10			
CLASSIFICATION	SILTY SAND (SM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)			

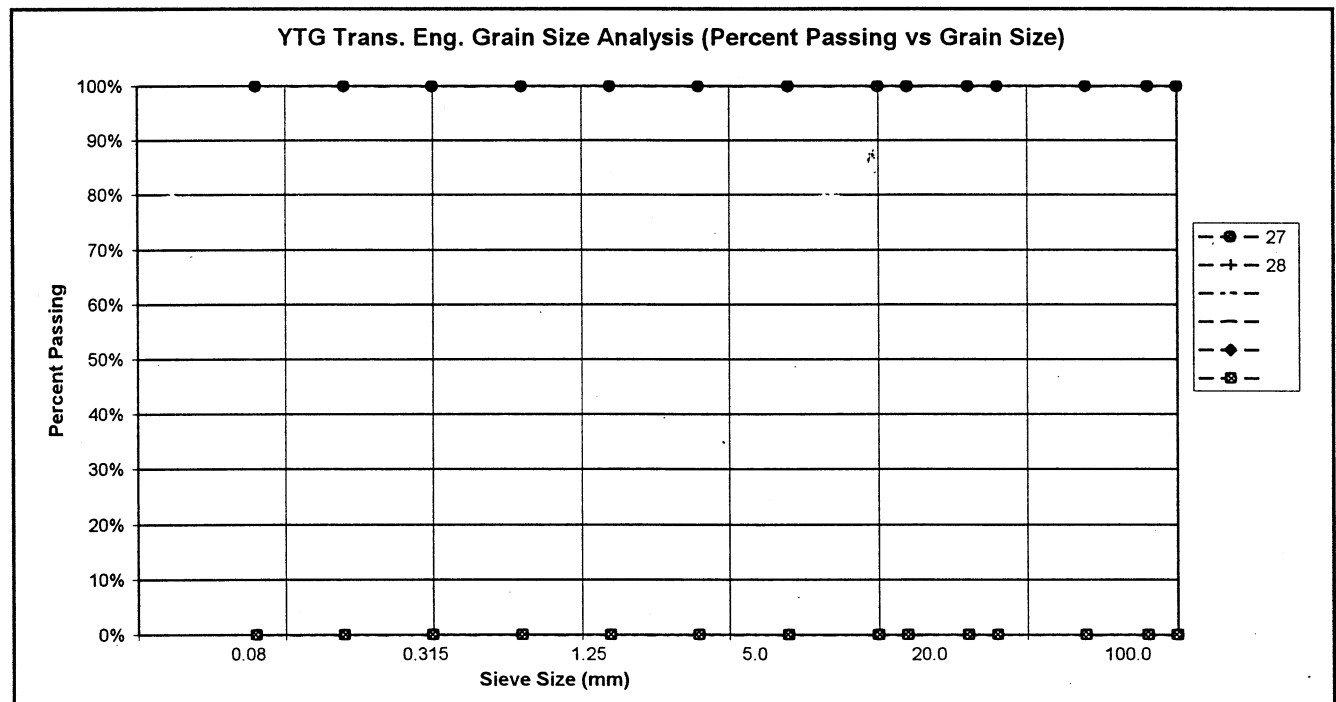


PROJECT NUMBER: 552-202101-0328-1
 CLIENT: Engineering Capital
 PROJECT NAME: Shakwak Granular Investigation
 PROJECT LOCATION: Burwash Pit & Channel
 DRILL UNIT: Ex 400 Backhoe
 HOLE LOCATION: See Plan
 LOGGED BY: G.C.

HOLE No.: 641-2588

DATE COMP: Nov 6/02

FIELD NO:	27	28			
LAB NO:	Lost	Lost			
DEPTH:	0.6-1.0	2.0-3.0			
TYPE:	BULK	BULK	BULK	BULK	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%			
80.0	100%	100%			
50.0	100%	100%			
25.0	100%	100%			
20.0	100%	100%			
12.5	100%	100%			
10.0	100%	100%			
5.0	100%	100%			
2.5	100%	100%			
1.25	100%	100%			
0.630	100%	100%			
0.315	100%	100%			
0.160	100%	100%			
0.080	100%	100%			
M.C.(%):					
LIQUID LIMIT:	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0			
% GRAVEL:	0	0			
% SAND:	0	0			
% FINES:	100	100			
CLASSIFICATION	SILT (ML)	SILT (ML)			

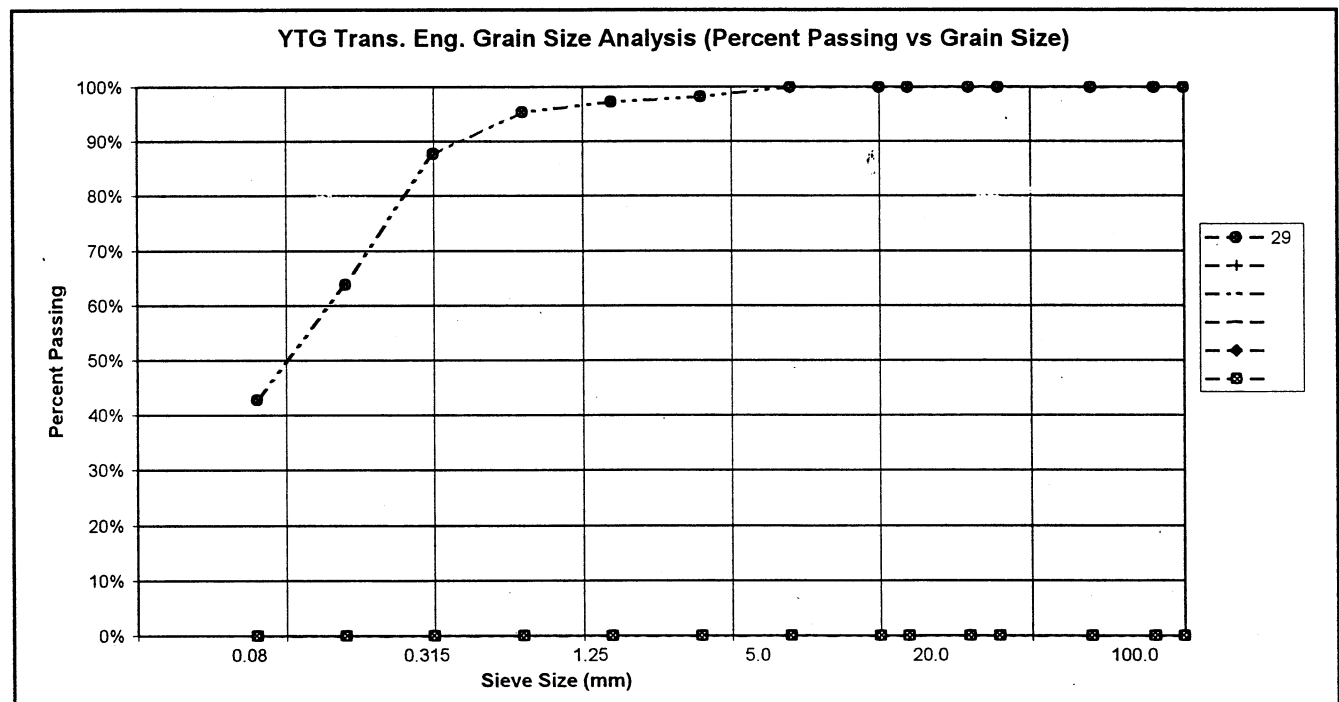


PROJECT NUMBER: 552-202101-0328-1
 CLIENT: Engineering Capital
 PROJECT NAME: Shakwak Granular Investigation
 PROJECT LOCATION: Burwash Pit & Channel
 DRILL UNIT: Ex 400 Backhoe
 HOLE LOCATION: See Plan
 LOGGED BY: G.C.

HOLE No.: 641-2589

DATE COMP: Nov 6/02

FIELD NO:	29				
LAB NO:	1040				
DEPTH:	0.5-1.0				
TYPE:	BULK	BULK	BULK	BULK	
SIEVE SIZE	PERCENT PASSING				
100.0	100%				
80.0	100%				
50.0	100%				
25.0	100%				
20.0	100%				
12.5	100%				
10.0	100%				
5.0	100%				
2.5	98%				
1.25	97%				
0.630	95%				
0.315	88%				
0.160	64%				
0.080	43%				
M.C.(%)	22%				
LIQUID LIMIT:	0.0				
PLASTIC LIMIT:	0.0				
PLASTIC INDEX.:	0.0				
% GRAVEL:	0				
% SAND:	57				
% FINES:	43				
CLASSIFICATION	SILTY SAND (SM)				

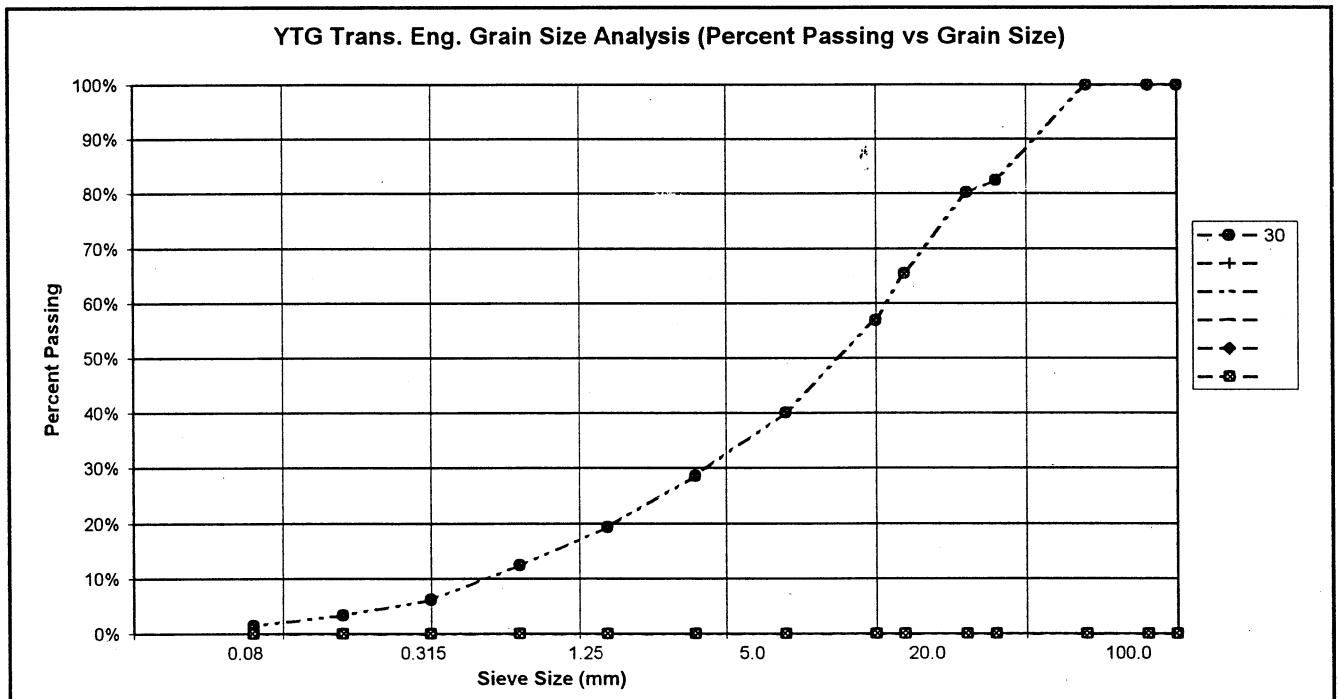


PROJECT NUMBER: 552-202101-0328-1
 CLIENT: Engineering Capital
 PROJECT NAME: Shakwak Granular Investigation
 PROJECT LOCATION: Burwash Pit & Channel
 DRILL UNIT: Ex 400 Backhoe
 HOLE LOCATION: See Plan
 LOGGED BY: G.C.

HOLE No.: 641-2590

DATE COMP: Nov 6/02

FIELD NO:	30				
LAB NO:	1041				
DEPTH:	1.0-1.4				
TYPE:	BULK	BULK	BULK	BULK	
SIEVE SIZE	PERCENT PASSING				
100.0	100%				
80.0	100%				
50.0	100%				
25.0	83%				
20.0	80%				
12.5	65%				
10.0	57%				
5.0	40%				
2.5	29%				
1.25	19%				
0.630	12%				
0.315	6%				
0.160	3%				
0.080	2%				
M.C.(%):					
LIQUID LIMIT:	0.0				
PLASTIC LIMIT:	0.0				
PLASTIC INDEX.:	0.0				
% GRAVEL:	60				
% SAND:	39				
% FINES:	2				
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)				

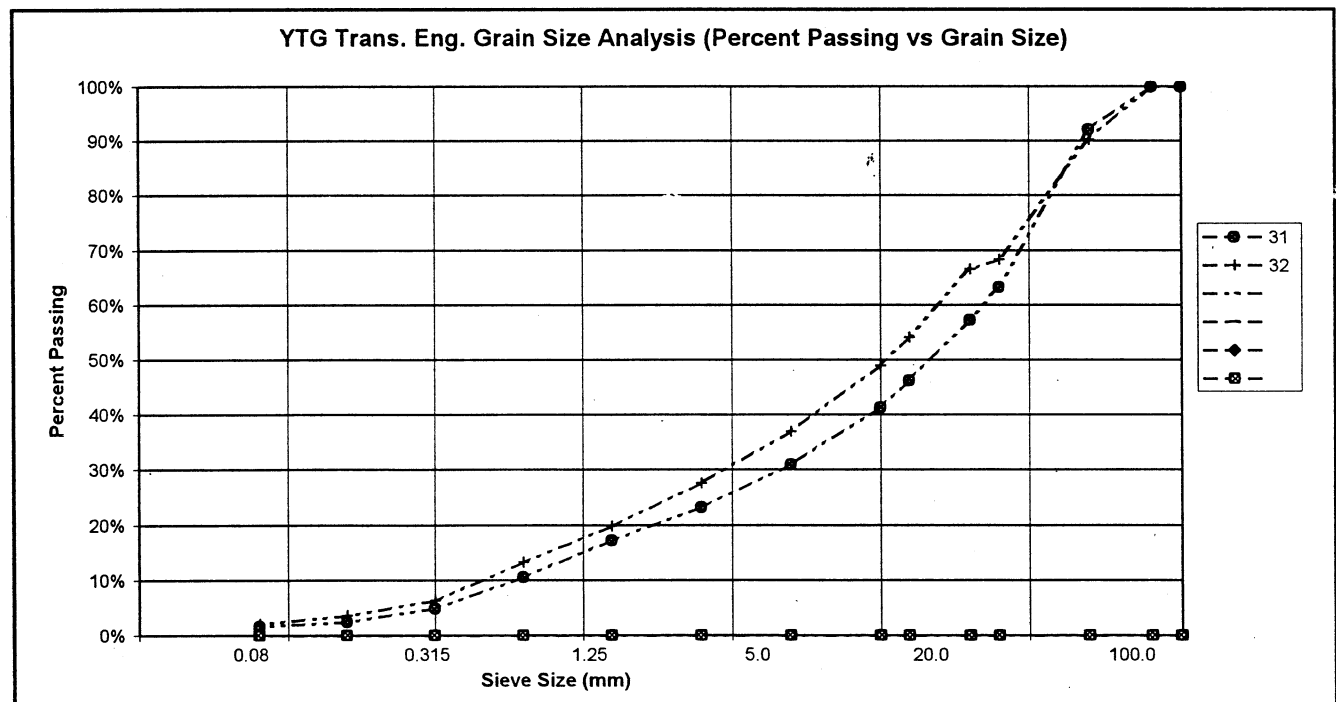


PROJECT NUMBER: 552-202101-0328-1
 CLIENT: Engineering Capital
 PROJECT NAME: Shakwak Granular Investigation
 PROJECT LOCATION: Burwash Pit & Channel
 DRILL UNIT: Ex 400 Backhoe
 HOLE LOCATION: See Plan
 LOGGED BY: G.C.

HOLE No.: 641-2591

DATE COMP: Nov 7/02

FIELD NO:	31	32			
LAB NO:	1042	1043			
DEPTH:	0.5-1.5	2.5-3.5			
TYPE:	BULK	BULK	BULK	BULK	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%			
80.0	100%	100%			
50.0	92%	90%			
25.0	63%	68%			
20.0	57%	67%			
12.5	46%	54%			
10.0	41%	49%			
5.0	31%	37%			
2.5	23%	28%			
1.25	17%	20%			
0.630	11%	13%			
0.315	5%	6%			
0.160	3%	4%			
0.080	2%	2%			
M.C.(%):					
LIQUID LIMIT:	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0			
% GRAVEL:	69	63			
% SAND:	29	35			
% FINES:	2	2			
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)			

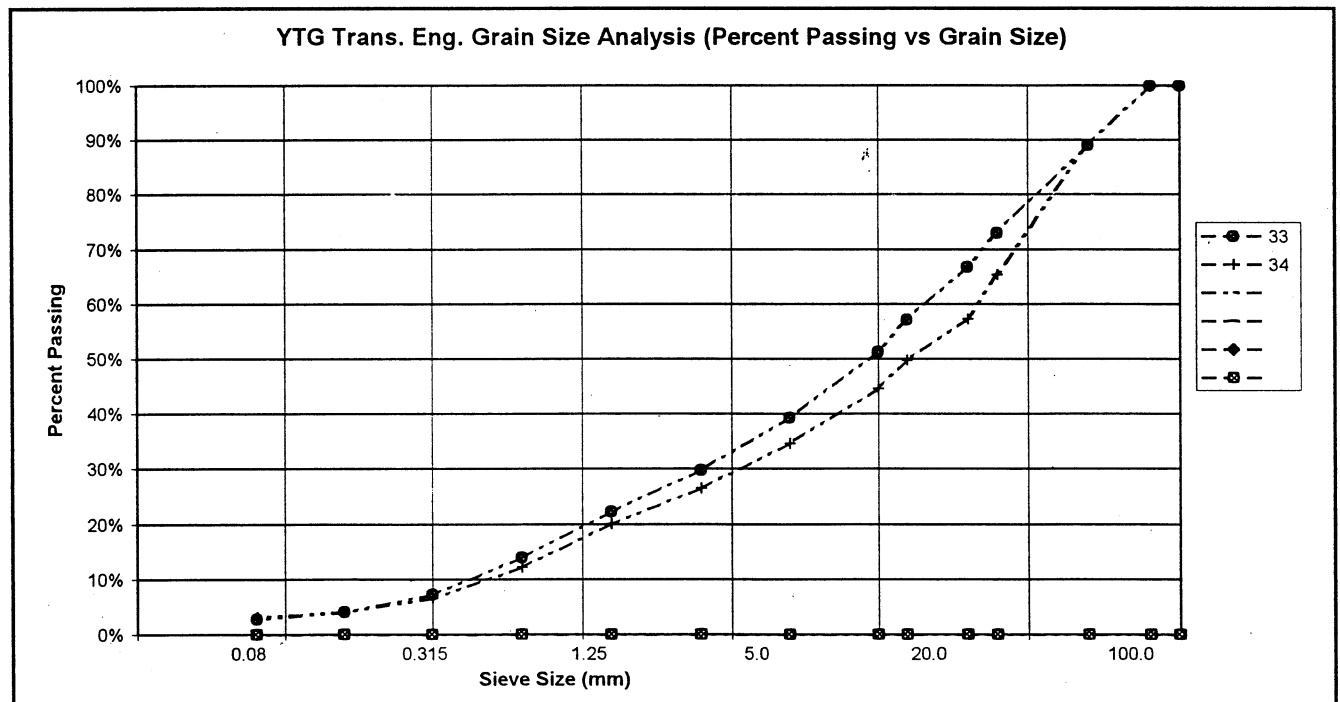


PROJECT NUMBER: 552-202101-0328-1
 CLIENT: Engineering Capital
 PROJECT NAME: Shakwak Granular Investigation
 PROJECT LOCATION: Burwash Pit & Channel
 DRILL UNIT: Ex 400 Backhoe
 HOLE LOCATION: See Plan
 LOGGED BY: G.C.

HOLE No.: 641-2592

DATE COMP: Nov 7/02

FIELD NO:	33	34			
LAB NO:	1044	1045			
DEPTH:	1.0-2.0	3.0-4.0			
TYPE:	BULK	BULK	BULK	BULK	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%			
80.0	100%	100%			
50.0	89%	89%			
25.0	73%	65%			
20.0	67%	57%			
12.5	57%	50%			
10.0	51%	45%			
5.0	39%	35%			
2.5	30%	27%			
1.25	22%	20%			
0.630	14%	12%			
0.315	7%	7%			
0.160	4%	4%			
0.080	3%	3%			
M.C.(%):					
LIQUID LIMIT:	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0			
% GRAVEL:	61	65			
% SAND:	36	31			
% FINES:	3	3			
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)			

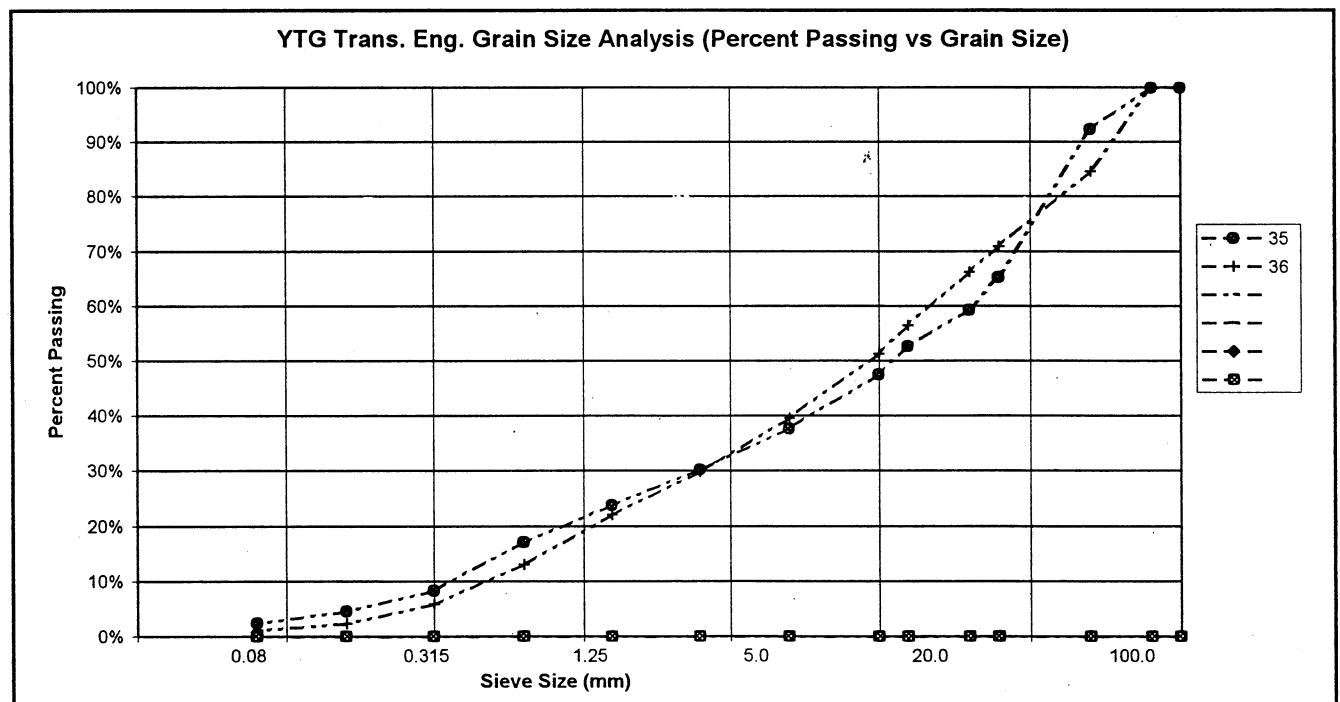


PROJECT NUMBER: 552-202101-0328-1
 CLIENT: Engineering Capital
 PROJECT NAME: Shakwak Granular Investigation
 PROJECT LOCATION: Burwash Pit & Channel
 DRILL UNIT: Ex 400 Backhoe
 HOLE LOCATION: See Plan
 LOGGED BY: G.C.

HOLE No.: 641-2493

DATE COMP: Nov 7/02

FIELD NO:	35	36			
LAB NO:	1046	1047			
DEPTH:	1.0-2.0	3.0-4.0			
TYPE:	BULK	BULK	BULK	BULK	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%			
80.0	100%	100%			
50.0	92%	85%			
25.0	65%	71%			
20.0	59%	66%			
12.5	53%	56%			
10.0	48%	51%			
5.0	38%	40%			
2.5	30%	30%			
1.25	24%	22%			
0.630	17%	13%			
0.315	8%	6%			
0.160	5%	2%			
0.080	3%	1%			
M.C.(%):					
LIQUID LIMIT:	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0			
PLASTIC INDEX:	0.0	0.0			
% GRAVEL:	62	60			
% SAND:	35	38			
% FINES:	3	1			
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)			

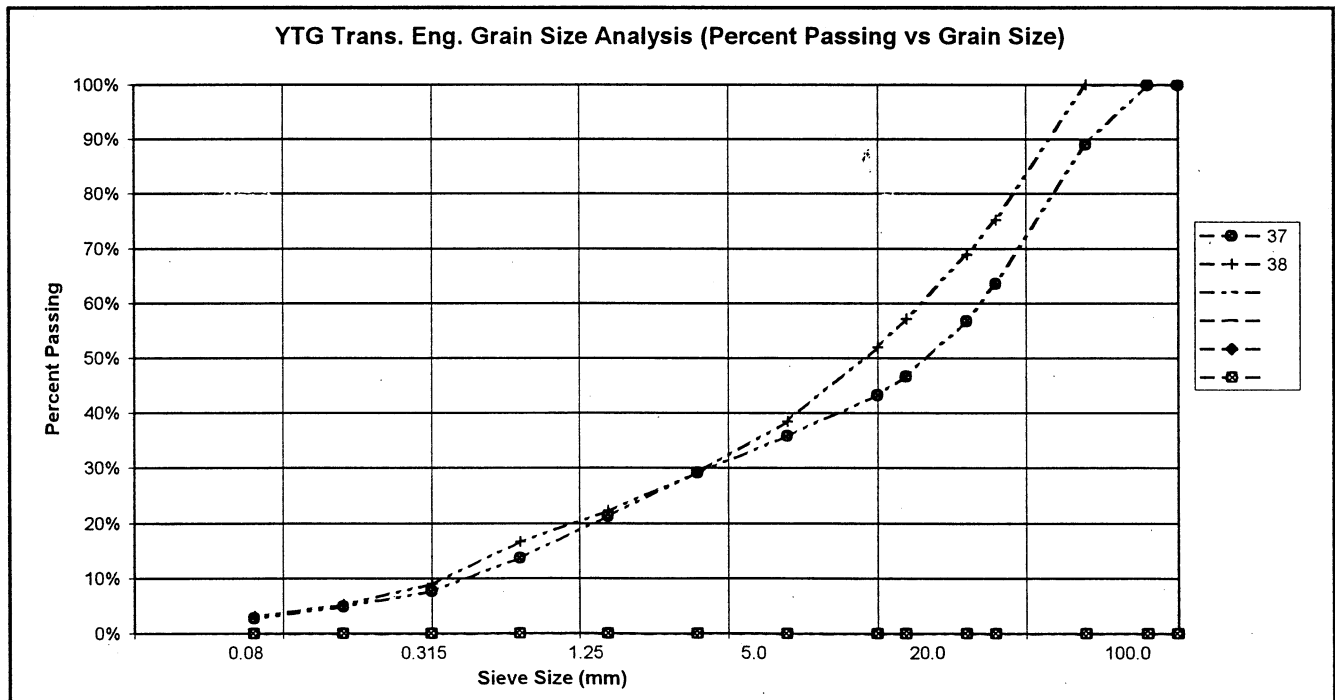


PROJECT NUMBER: 552-202101-0328-1
 CLIENT: Engineering Capital
 PROJECT NAME: Shakwak Granular Investigation
 PROJECT LOCATION: Burwash Pit & Channel
 DRILL UNIT: Ex 400 Backhoe
 HOLE LOCATION: See Plan
 LOGGED BY: G.C.

HOLE No.: 641-2594

DATE COMP: Nov 7/02

FIELD NO:	37	38			
LAB NO:	1048	1049			
DEPTH:	1.0-2.0	3.0-4.0			
TYPE:	BULK	BULK	BULK	BULK	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%			
80.0	100%	100%			
50.0	89%	100%			
25.0	64%	75%			
20.0	57%	69%			
12.5	47%	57%			
10.0	43%	52%			
5.0	36%	38%			
2.5	29%	29%			
1.25	21%	22%			
0.630	14%	17%			
0.315	8%	9%			
0.160	5%	5%			
0.080	3%	3%			
M.C.(%):					
LIQUID LIMIT:	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0			
% GRAVEL:	64	62			
% SAND:	33	35			
% FINES:	3	3			
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)			

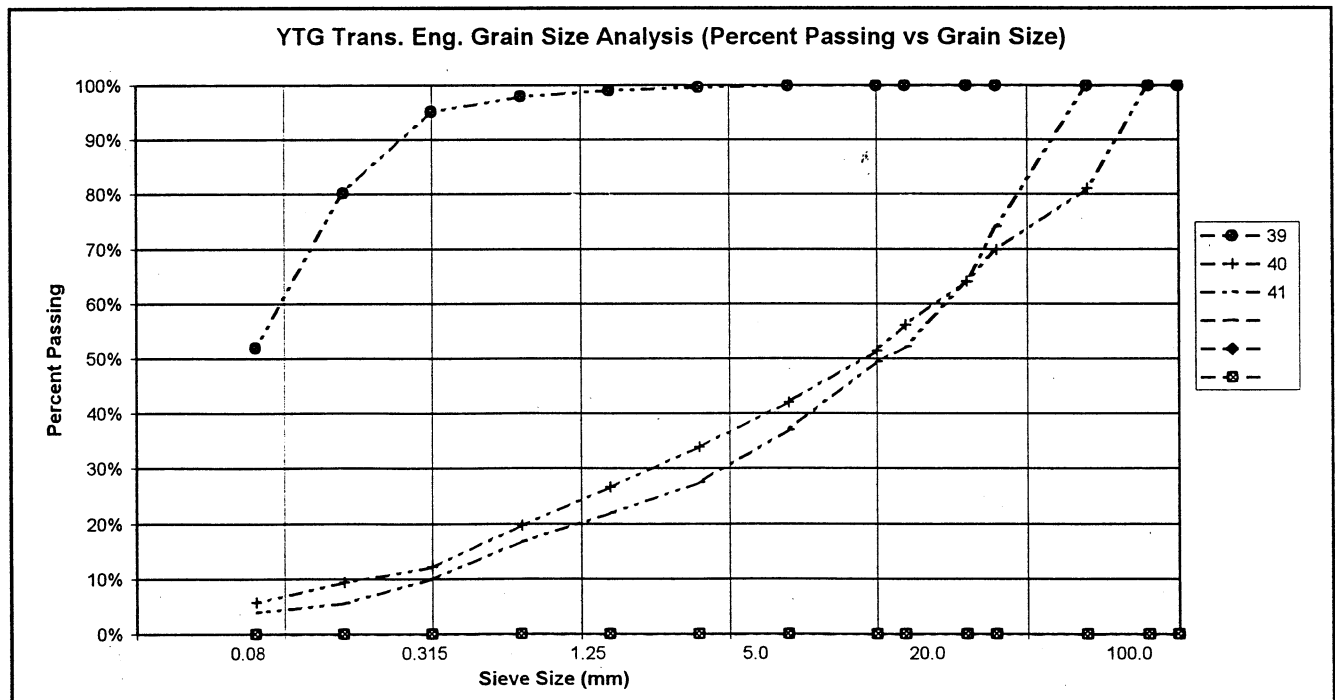


PROJECT NUMBER: 552-202101-0328-1
 CLIENT: Engineering Capital
 PROJECT NAME: Shakwak Granular Investigation
 PROJECT LOCATION: Burwash Pit & Channel
 DRILL UNIT: Ex 400 Backhoe
 HOLE LOCATION: See Plan
 LOGGED BY: G.C.

HOLE No.: 641-2595

DATE COMP: Nov 7/02

FIELD NO:	39	40	41		
LAB NO:	1050	1051	1052		
DEPTH:	1.8-2.2	2.8-3.4	4.0-5.0		
TYPE:	BULK	BULK	BULK	BULK	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%		
80.0	100%	100%	100%		
50.0	100%	81%	100%		
25.0	100%	70%	74%		
20.0	100%	64%	64%		
12.5	100%	56%	52%		
10.0	100%	51%	49%		
5.0	100%	42%	37%		
2.5	100%	34%	27%		
1.25	99%	27%	22%		
0.630	98%	20%	17%		
0.315	95%	12%	10%		
0.160	80%	9%	6%		
0.080	52%	6%	4%		
M.C.(%):	29%				
LIQUID LIMIT:	0.0	0.0	0.0		
PLASTIC LIMIT:	0.0	0.0	0.0		
PLASTIC INDEX.:	0.0	0.0	0.0		
% GRAVEL:	0	58	63		
% SAND:	48	36	33		
% FINES:	52	6	4		
CLASSIFICATION	SANDY SILT (ML)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	POORLY GRADED GRAVEL WITH SAND (GP)		

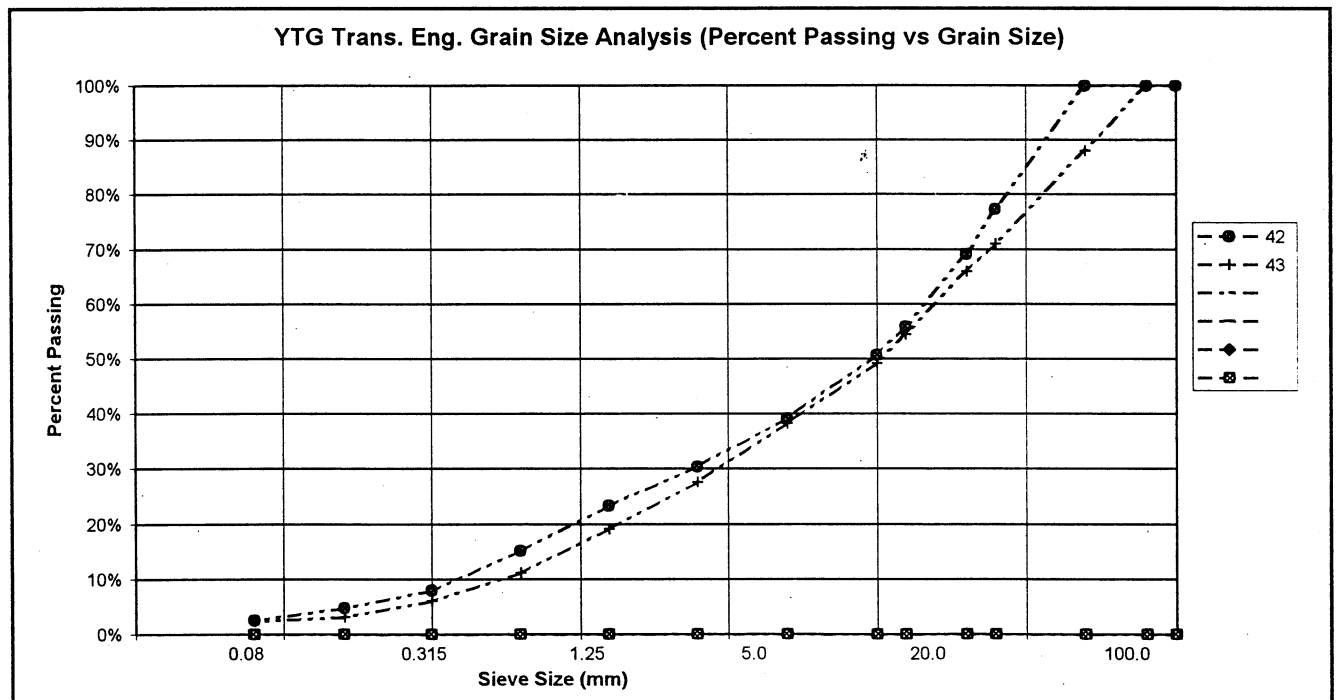


PROJECT NUMBER: 552-202101-0328-1
 CLIENT: Engineering Capital
 PROJECT NAME: Shakwak Granular Investigation
 PROJECT LOCATION: Burwash Pit & Channel
 DRILL UNIT: Ex 400 Backhoe
 HOLE LOCATION: See Plan
 LOGGED BY: G.C.

HOLE No.: 641-2597

DATE COMP: Nov 7/02

FIELD NO:	42	43			
LAB NO:	1053	1054			
DEPTH:	1.0-2.0	3.0-4.0			
TYPE:	BULK	BULK	BULK	BULK	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%			
80.0	100%	100%			
50.0	100%	88%			
25.0	77%	71%			
20.0	69%	66%			
12.5	56%	54%			
10.0	51%	49%			
5.0	39%	38%			
2.5	30%	28%			
1.25	23%	19%			
0.630	15%	11%			
0.315	8%	6%			
0.160	5%	3%			
0.080	3%	2%			
M.C.(%):					
LIQUID LIMIT:	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0			
% GRAVEL:	61	62			
% SAND:	37	36			
% FINES:	3	2			
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)			

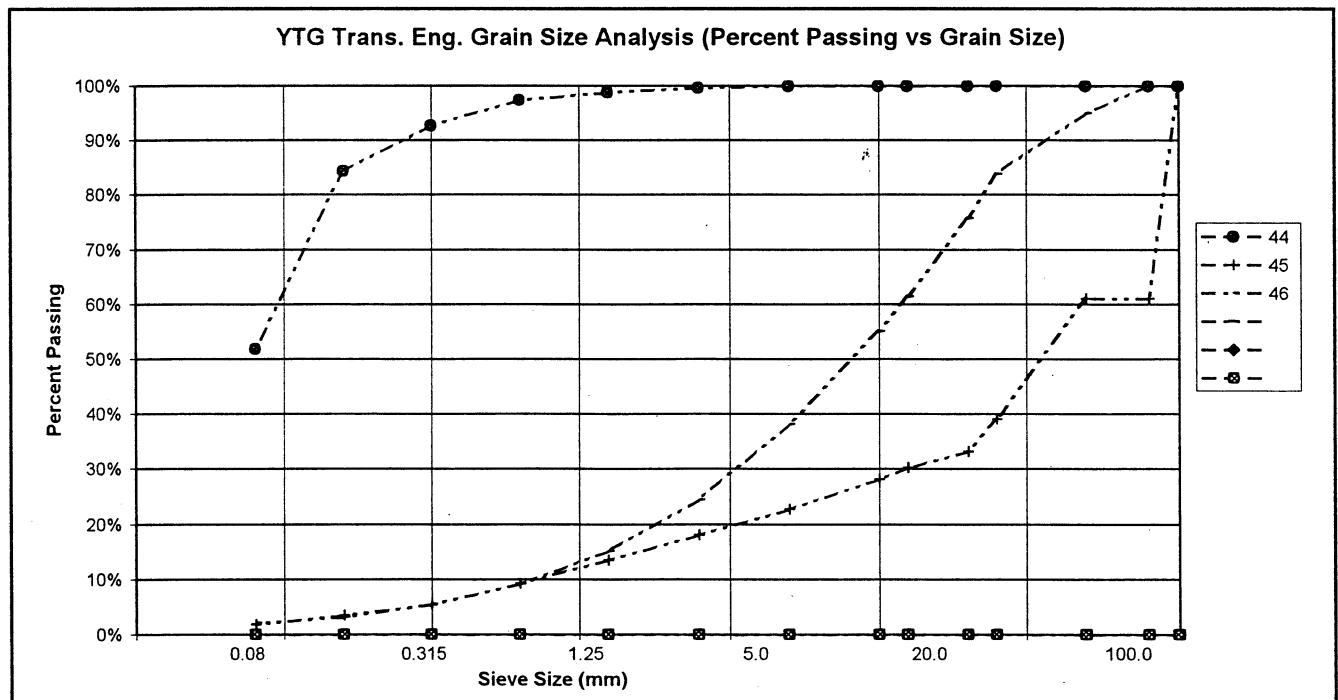


PROJECT NUMBER: 552-202101-0328-1
 CLIENT: Engineering Capital
 PROJECT NAME: Shakwak Granular Investigation
 PROJECT LOCATION: Burwash Pit & Channel
 DRILL UNIT: Ex 400 Backhoe
 HOLE LOCATION: See Plan
 LOGGED BY: G.C.

HOLE No.: 641-2598

DATE COMP: Nov 7/02

FIELD NO:	44	45	46		
LAB NO:	1055	1056	1057		
DEPTH:	0.8-1.2	2.0-3.0	4.0-5.0		
TYPE:	BULK	BULK	BULK	BULK	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%		
80.0	100%	61%	100%		
50.0	100%	61%	95%		
25.0	100%	39%	84%		
20.0	100%	33%	76%		
12.5	100%	30%	61%		
10.0	100%	28%	55%		
5.0	100%	23%	38%		
2.5	100%	18%	24%		
1.25	99%	14%	15%		
0.630	97%	9%	9%		
0.315	93%	5%	5%		
0.160	84%	4%	3%		
0.080	52%	2%	2%		
M.C.(%):	27%				
LIQUID LIMIT:	0.0	0.0	0.0		
PLASTIC LIMIT:	0.0	0.0	0.0		
PLASTIC INDEX.:	0.0	0.0	0.0		
% GRAVEL:	0	77	62		
% SAND:	48	21	36		
% FINES:	52	2	2		
CLASSIFICATION	SANDY SILT (ML)	WELL-GRADED GRAVEL WITH SAND (GW)	POORLY GRADED GRAVEL WITH SAND (GP)		

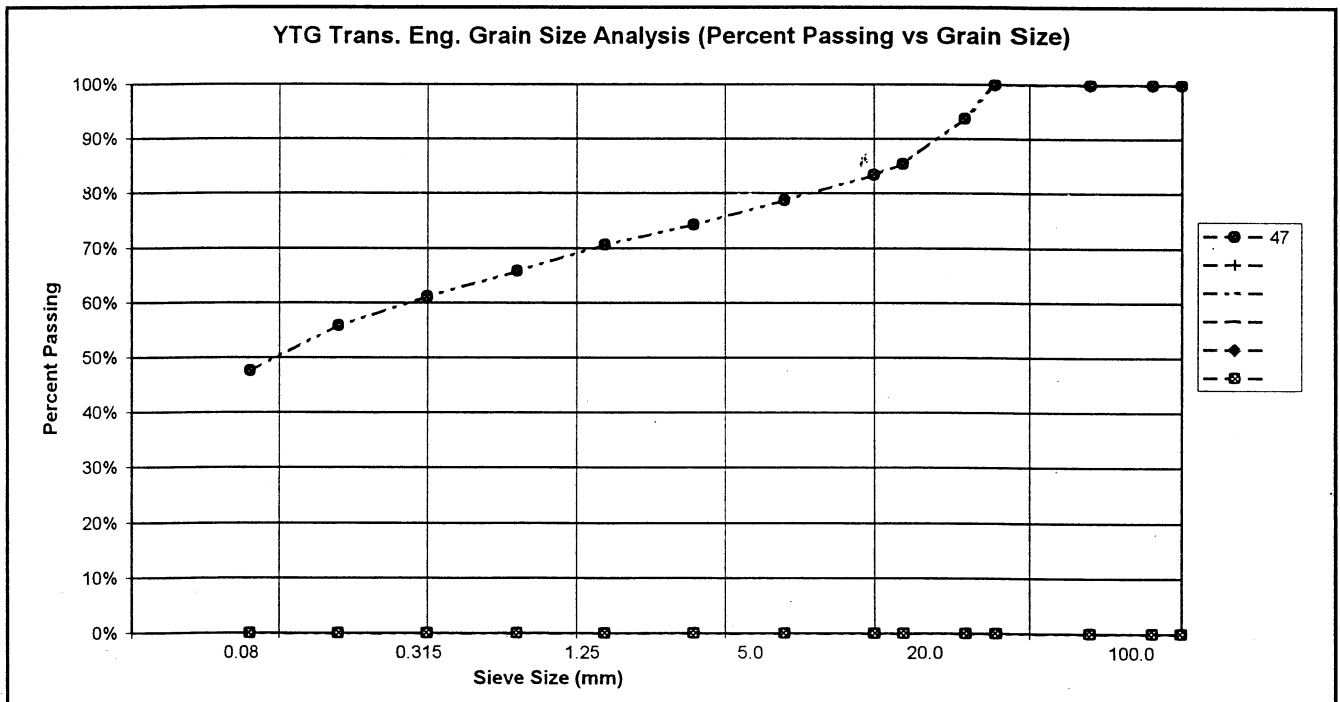


PROJECT NUMBER: 552-202101-0328-1
 CLIENT: Engineering Capital
 PROJECT NAME: Shakwak Granular Investigation
 PROJECT LOCATION: Burwash Pit & Channel
 DRILL UNIT: Ex 400 Backhoe
 HOLE LOCATION: See Plan
 LOGGED BY: G.C.

HOLE No.: 641-2599

DATE COMP: Nov 7/02

FIELD NO:	47				
LAB NO:	1058				
DEPTH:	1.6-2.0				
TYPE:	BULK	BULK	BULK	BULK	
SIEVE SIZE	PERCENT PASSING				
100.0	100%				
80.0	100%				
50.0	100%				
25.0	100%				
20.0	94%				
12.5	85%				
10.0	83%				
5.0	79%				
2.5	74%				
1.25	71%				
0.630	66%				
0.315	61%				
0.160	56%				
0.080	48%				
M.C.(%):					
LIQUID LIMIT:	0.0				
PLASTIC LIMIT:	0.0				
PLASTIC INDEX.:	0.0				
% GRAVEL:	21				
% SAND:	31				
% FINES:	48				
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)				



PROJECT NUMBER: 552-202101-0328-1
 CLIENT: Engineering Capital
 PROJECT NAME: Shakwak Granular Investigation
 PROJECT LOCATION: Burwash Pit & Channel
 DRILL UNIT: Ex 400 Backhoe
 HOLE LOCATION: See Plan
 LOGGED BY: G.C.

HOLE No.: 642-2601

DATE COMP: Nov 7/02

FIELD NO:	49	50			
LAB NO:	1060	1061			
DEPTH:	1.0-2.0	3.2-3.6			
TYPE:	BULK	BULK	BULK	BULK	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%			
80.0	78%	100%			
50.0	78%	100%			
25.0	63%	97%			
20.0	56%	92%			
12.5	49%	90%			
10.0	45%	86%			
5.0	35%	79%			
2.5	25%	72%			
1.25	16%	67%			
0.630	8%	62%			
0.315	4%	56%			
0.160	2%	41%			
0.080	2%	21%			
M.C.(%):		10%			
LIQUID LIMIT:	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0			
PLASTIC INDEX:	0.0	0.0			
% GRAVEL:	65	21			
% SAND:	34	57			
% FINES:	2	21			
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	SILTY SAND WITH GRAVEL (SM)			

